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The Commonwealth of Massachusetts

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

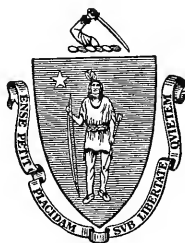
BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1921

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THE EIGHTY-FIRST ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



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## CONTENTS.

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	PAGE
REPORT OF TRUSTEES . . . . .	7
REPORT OF SUPERINTENDENT . . . . .	10
REPORT OF TREASURER . . . . .	51
STATISTICS . . . . .	57



# BOSTON STATE HOSPITAL.

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## BOARD OF TRUSTEES.

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Mrs. KATHERINE G. DEVINE, <i>Secretary</i>	Boston.
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RALPH W. HATCH, M.D.	<i>Ophthalmologist.</i>
FRED A. SIMMONS, M.D.	<i>Laryngologist, Rhinologist, and Otologist.</i>

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ERMY C. NOBLE, M.D.	<i>Assistant Superintendent.</i>
MARY E. GILL NOBLE, M.D.	<i>Senior Assistant Physician.</i>
EDMUND M. PEASE, M.D.	<i>Senior Assistant Physician.</i>
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— — — — —	<i>Assistant Physician.</i>
— — — — —	<i>Assistant Physician.</i>
— — — — —	<i>Assistant Physician.</i>
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# The Commonwealth of Massachusetts

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## TRUSTEES' REPORT.

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*To His Excellency the Governor and the Honorable Council.*

The trustees of the Boston State Hospital have the honor to submit herewith their thirteenth annual report.

### MEETINGS AND MEMBERSHIP OF THE BOARD.

The Board has held as usual twelve monthly meetings. Under a rule adopted this year, the chairman is required to visit the hospital at least once each month, and of the monthly visiting committee of two, one is assigned to each group.

Dr. Hyman B. Swig having resigned his office because of removal from the State, Mr. David M. Watchmaker of Boston was appointed to the Board in March.

### PERSONS UNDER THE CARE OF THE TRUSTEES.

On Dec. 1, 1920, there were 1,765 patients in the hospital, 10 in private care and 374 on visit or escape, a total of 2,149 persons under the care of the Board. On Nov. 30, 1921, the total number was 2,212, of whom 1,915 were in the hospital, 8 in private care, and 289 on visit or escape.

### CONSTRUCTION AND IMPROVEMENTS.

During the year both dining room and kitchen buildings, one in the East Group and one in the West Group, were completed and are now in use and add a great deal to the ease of administration and to the comfort of the patients and employees. The nurses' home in the West Group was also completed and occupied. These three buildings were authorized in 1919, with supplementary appropriations in 1920 and 1921. No new con-

struction was authorized in 1920. In 1921 the following appropriations were made:—

For repairs or reconstruction of a certain sewer line . . . . .	\$5,000 00
For an addition to the present laundry building and certain new machinery . . . . .	15,000 00

The installation of the new sewer line has been completed and the addition to the laundry building is under way.

#### IMPROVEMENTS RECOMMENDED.

The following improvements and new construction were recommended to the Department of Mental Diseases:—

Administration building and staff quarters . . . . .	\$170,000 00
Superintendent's house . . . . .	20,000 00
New roof for buildings C and D, West Group, East Group chapel and adjoining corridors . . . . .	15,000 00
Bakery . . . . .	40,000 00
Concrete platform for coal storage . . . . .	5,000 00
New laundry machinery . . . . .	7,500 00
Addition to refrigerating room and additional refrigerating machinery . . . . .	25,000 00
New watch clock system, West Group . . . . .	3,000 00
Addition to garage . . . . .	3,500 00
Fencing . . . . .	5,000 00
New greenhouse . . . . .	5,500 00
Paint shop . . . . .	5,400 00
Automatic CO <sub>2</sub> and draft recorders . . . . .	2,400 00
Stokers for eight boilers . . . . .	32,500 00
Extension to sewer, water and steam lines . . . . .	12,000 00
Concrete pavement in front of power house . . . . .	10,000 00
Verandas, C building, East Group . . . . .	8,000 00
Verandas, G building, East Group . . . . .	5,000 00
Cottage for twenty farm employees . . . . .	30,000 00

#### ESTIMATES FOR MAINTENANCE.

The following are the estimates for the amount needed for maintenance for the ensuing year based upon the established salary scale and the data furnished by the Department of Mental Diseases:—

Personal services . . . . .	\$359,406 50
Religious instruction . . . . .	2,080 00
Travel, transportation, etc. . . . .	9,700 00
Food . . . . .	223,382 20
Clothing and material . . . . .	30,003 80
Furnishings and household supplies . . . . .	40,781 00
Medical and general care . . . . .	18,641 00
Heat, light and power . . . . .	40,047 88
Farm . . . . .	9,438 26
Garage, stable and grounds . . . . .	10,769 52
Repairs, ordinary . . . . .	20,564 04
Repairs and renewals . . . . .	51,360 93
Total . . . . .	\$789,175 13

This estimate is based on an expected population of 2,050 and may be compared with the appropriation for the current year of \$808,030 for a population of 1,950.

#### ADMINISTRATIVE DETAILS.

The reports of the superintendent and other officers are appended and give in full detail the operations of the hospital for the past year, with explanations of the needed additions and improvements. The trustees desire to express their appreciation of the loyal devotion of the officers to the service of the hospital and of their efforts to make the institution of the most effective usefulness to the Commonwealth.

HENRY LEFAVOUR.

KATHERINE G. DEVINE.

JOHN A. KIGGEN.

WILLIAM F. WHITTEMORE.

CHARLES B. FROTHINGHAM.

EDNA W. DREYFUS.

DAVID M. WATCHMAKER.

Nov. 30, 1921.

## SUPERINTENDENT'S REPORT.

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*To the Board of Trustees of the Boston State Hospital.*

In accordance with the provisions of the statutes, I am submitting for your consideration the report of the superintendent for the statistical year ending Sept. 30, 1921, and the fiscal year ending Nov. 30, 1921. Founded by the city of Boston in 1839, this completes the thirteenth year of the history of the institution as a State hospital and the eighty-second year of its continuous existence as a hospital for mental diseases.

### MOVEMENT OF POPULATION.

The census of the hospital on Sept. 30, 1920, was as follows: in the wards, men, 767, women, 996, total, 1,763; at home on visit, men, 81, women, 156, total, 237; boarding out, women, 8; and out on escape, men, 6, women, 2, total, 8; making a total of 2,016, 854 men and 1,162 women, in the custody of the hospital.

Three hundred and twenty-nine men and 340 women, a total of 669, were received during the year. This included the following: first admissions as insane, men, 188, women, 168, total, 356; readmissions as insane, men, 74, women, 63, total, 137; first admissions, temporary care, men, 8, women, 9, total, 17; readmissions, temporary care, men, 6, women, 4, total, 10; received from the psychopathic department, men, 29, women, 24, total, 53; and transferred from other institutions, men, 24, women, 72, total, 96. One hundred and seventy-six cases, including 79 men and 97 women, were discharged during the year. Three men and 12 women, a total of 15, were transferred to other institutions. One hundred and twenty-seven men and 150 women, a total of 277, died during the year.

The census on Sept. 30, 1921, was as follows: in the wards, men, 869, women, 1,070, total, 1,939; at home on visit, men,

103, women, 165, total, 268; boarding out, women, 8; and out on escape, men, 2; making a total of 2,217, 974 men and 1,243 women, in the custody of the hospital.

The total number of cases treated during the year was 2,685, 1,183 men and 1,052 women.

The average daily number of patients for the statistical year was: men, 921.04, women, 1,203.52, total, 2,124.57. The average daily number in the wards was: men, 824.69, women, 1,037.67, total, 1,862.36, or 87.66 per cent of the whole number. The average daily number at home on visit was: men, 92.38, women, 156.58, total, 248.96, or 11.72 per cent. The average daily number boarding out was: women, 8.87, or .42 per cent. The average daily number out on escape was: men, 3.97, women, .41, total, 4.38, or .20 per cent. The average daily number of committed cases was: men, 811.93, women, 1,020.89, total, 1,832.82, or 98.41 per cent of the number in the wards. The average daily number of voluntary cases was: men, 10.54, women, 15.41, total, 25.95, or 1.39 per cent. The average daily number of emergency cases was: men, .08, women, .07, total, .15, or .01 per cent. The average daily number of cases under complaint or indictment was: men, 5.87, women, 2.25, total, 8.12, or .44 per cent. The average daily number of temporary care cases was: men, 2.22, women, 1.37, total, 3.59, or .20 per cent. The average daily number of epileptics was: men, 14.87, women, 14.50, total, 29.37, or 1.58 per cent. The average daily number of private cases was: men, 13.67, women, 72.02, total, 85.69, or 4.6 per cent. The average daily number of reimbursing cases was: men, 30.68, women, 133.23, total, 163.91, or 8.8 per cent. The average daily number of cases supported by the State was: men, 746.79, women, 832.42, total, 1,579.21, or 84.8 per cent. There was a daily average of 33.55 soldier cases, or 1.8 per cent.

The recovery rate, based on the number of first admissions, was 12.87 per cent; based on the total number cared for during the year, 1.70 per cent; and based on the average daily number in the wards, 2.58 per cent.

The death rate, based on the total number cared for during the year, was 10.32 per cent; and based on the average daily number in the wards, 14.87 per cent. The death rate of the

hospital is unusually large when compared with that of other institutions of a similar character, as over 30 per cent of the population is of the infirmary type and 8 per cent represents actual bed cases. This is due to the fact that the acutely ill, the senile and the infirm cases from the city cannot be readily transported to distant institutions and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate.

Of the first admissions as insane, 171, or 48.03 per cent, were foreign born, and 314, or 88.20 per cent, were of foreign parentage on one or both sides. Sixty, or 16.85 per cent, were aliens.

The average age on admission was 50.03; 131, or 36.80 per cent, were sixty years of age or over, and 66, or 18.54 per cent, were seventy years of age or over.

The first admissions for the year, classified according to legal status, were as follows:—

	Males.	Females.	Totals.
Committed cases (section 30, chapter 504, Acts of 1909) .	148	140	288
Voluntary admissions (section 45, chapter 504, Acts of 1909)	1	2	3
Emergency commitments (section 42, chapter 504, Acts of 1909).	8	6	14
Cases held under complaint or indictment (chapter 46, General Acts of 1917).	1	—	1
Temporary care cases (chapter 174, General Acts of 1915) .	19	16	35
Observation cases (chapter 145, General Acts of 1919) .	11	4	15
Boston police cases (chapter 307, Acts of 1910) . . .	—	—	—
Total . . . . .	188	168	356

Of the first admissions, as shown by the above table, 148 men and 140 women, a total of 288, or 80.89 per cent, were committed under the provisions of section 30 of chapter 504 of the Acts of 1909; 1 man and 2 women, a total of 3, or .84 per cent, were admitted as voluntary cases under the provisions of section 45 of chapter 504 of the Acts of 1909; 8 men and 6 women, a total of 14, or 3.96 per cent, were emergency cases, admitted under the provisions of section 42 of chapter 504 of the Acts of 1909; 1 man, or .28 per cent, held under complaint or indictment, was committed under the provisions of

chapter 46 of the General Acts of 1917; 19 men and 16 women, a total of 35, or 9.82 per cent, were admitted as temporary care cases under the provisions of chapter 174 of the General Acts of 1915; and 11 men and 4 women, a total of 15, or 4.2 per cent, were admitted for observation under the provisions of chapter 145 of the General Acts of 1919. No Boston police cases (chapter 307, Acts of 1910) and no cases pending examination and hearing (section 34, chapter 504, Acts of 1909) were admitted during the year.

Two hundred and eighty-eight committed cases (section 30, chapter 504, Acts of 1909) were admitted during the year. Of the 152 committed cases discharged, 38, or 25 per cent, were discharged as recovered; 80, or 52.63 per cent, as improved; 31, or 20.39 per cent, as unimproved; and 3, or 1.98 per cent, as without psychosis. Fourteen committed cases were transferred to other institutions for the insane.

Three voluntary cases (section 45, chapter 504, Acts of 1909) were admitted during the year. Of these, 1 died and 2 remained as voluntary cases at the end of the statistical year. Of the 6 voluntary cases discharged during the year, 2 were discharged as recovered; 3 as improved; and 1 as unimproved.

Fourteen emergency cases (section 42, chapter 504, Acts of 1909) were admitted during the year. Thirteen of these, or 92.85 per cent, were committed within a few days after admission and 1 remained at the end of the statistical year, being committed shortly thereafter.

One case, held under complaint or indictment, was admitted under the provisions of chapter 46 of the General Acts of 1917. This case is still in the institution.

Thirty-five temporary care cases (chapter 174, General Acts of 1915) were admitted during the year. Of these, 27, or 77.14 per cent, were committed; 3, or 8.57 per cent, changed to emergency status; 3, or 8.57 per cent, to voluntary; and 2, or 5.72 per cent, changed to observation status (chapter 145, General Acts of 1919).

Fifteen cases were admitted for observation (chapter 145, General Acts of 1919) during the year. All of these were subsequently committed.

Of the 356 first admissions, the cause was unascertained or

no cause given in 155 cases, or 43.54 per cent. In the 201 cases where a definite cause was assigned the etiological factors were as follows: senility, 41, or 20.4 per cent; arteriosclerosis, 26, or 12.93 per cent; syphilis, 45, or 22.39 per cent; alcoholism, 25, or 12.44 per cent; involutional changes, 6, or 2.99 per cent; and traumatism, 11, or 5.47 per cent. There was a family history of mental disease in 55, or 15.45 per cent, and a family history of nervous diseases in 23, or 6.46 per cent of the first admissions.

The forms of mental disease shown by the first admissions briefly summarized were as follows: senile psychoses, 76, or 21.35 per cent; psychoses with cerebral arteriosclerosis, 51, or 14.33 per cent; general paralysis, 43, or 12.08 per cent; alcoholic psychoses, 22, or 6.18 per cent; manic-depressive psychoses, 35, or 9.83 per cent; involution melancholia, 11, or 3.09 per cent; dementia præcox, 68, or 19.1 per cent; paranoia or paranoid conditions, 17, or 4.77 per cent; psychoses with psychopathic personality, 4, or 1.12 per cent; psychoses with mental deficiency, 8, or 2.24 per cent; undiagnosed psychoses, 5, or 1.40 per cent; and all other psychoses 1 per cent or less. The psychoses of all first admissions are shown in Table No. 6, on page 63.

The forms of mental disease shown by the readmissions briefly summarized were as follows: senile psychoses, 3, or 2.19 per cent; psychoses with cerebral arteriosclerosis, 5, or 3.66 per cent; general paralysis, 10, or 7.30 per cent; alcoholic psychoses, 7, or 5.11 per cent; manic-depressive psychoses, 54, or 39.41 per cent; dementia præcox, 31, or 22.63 per cent; paranoia or paranoid conditions, 7, or 5.11 per cent; psychoses with psychopathic personality, 4, or 2.92 per cent; psychoses with mental deficiency, 6, or 4.38 per cent; undiagnosed psychoses, 2, or 1.46 per cent; without psychosis, 5, or 3.66 per cent; and all other psychoses less than 1 per cent.

Of these readmissions, 101, or 73.72 per cent, were committed under the provisions of section 30 of chapter 504 of the Acts of 1909; 16, or 11.68 per cent, were voluntary admissions (section 45, chapter 504, Acts of 1909); 3, or 2.19 per cent, were emergency commitments (section 42, chapter 504, Acts of 1909); 4, or 2.92 per cent, held under complaint or indictment,



were committed under the provisions of chapter 46 of the General Acts of 1917; 10, or 7.3 per cent, were temporary care cases (chapter 174, General Acts of 1915); and 3, or 2.19 per cent, were observation cases (chapter 145, General Acts of 1919).

The forms of mental disease shown by the 53 cases received from the psychopathic department during October and November were as follows: senile psychoses, 5, or 9.43 per cent; psychoses with cerebral arteriosclerosis, 2, or 3.77 per cent; general paralysis, 8, or 15.09 per cent; psychoses with other somatic diseases, 2, or 3.77 per cent; manic-depressive psychoses, 8, or 15.09 per cent; involution melancholia, 2, or 3.77 per cent; dementia præcox, 13, or 24.53 per cent; paranoia or paranoid condition, 5, or 9.43 per cent; epileptic psychoses, 2, or 3.77 per cent; psychoses with mental deficiency, 2, or 3.77 per cent; and psychoses with other brain or nervous diseases, alcoholic psychoses, psychoneuroses and neuroses, and undiagnosed psychosis, 1 each.

The following tables show the psychoses of all first admissions classified according to legal status: —

*Psychoses of Committed Cases (Section 30, Chapter 504, Acts of 1909).*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Traumatic psychoses . . . . .	1	—	1	1	—	1
Senile psychoses . . . . .	12	41	53	12	41	53
Simple deterioration . . . . .	7	22	29			
Presbyophrenic type . . . . .	—	2	2			
Delirious and confused . . . . .	—	—	—			
Depressed and agitated . . . . .	2	4	6			
Paranoid states . . . . .	3	13	16			
Presenile types . . . . .	—	—	—			
Psychoses with cerebral arteriosclerosis . . . . .	26	15	41	26	15	41
General paralysis . . . . .	30	9	39	30	9	39
Psychoses with cerebral syphilis . . . . .	1	1	2	1	1	2
Psychoses with Huntington's chorea . . . . .	—	—	—	—	—	—
Psychoses with brain tumor . . . . .	—	—	—	—	—	—
Psychoses with other brain or other nervous diseases . . . . .	—	—	—	—	—	—
Alcoholic psychoses . . . . .	14	1	15	14	1	15
Pathological intoxication . . . . .	—	—	—			
Delirium tremens . . . . .	1	—	1			
Acute hallucinosis . . . . .	2	—	2			

*Psychoses of Committed Cases (Section 30, Chapter 504, Acts of 1909) —*  
*Concluded.*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Alcoholic psychoses — <i>Con.</i>						
Acute paranoid type . . . . .	1	—	1			
Korsakow's psychosis . . . . .	1	—	1			
Chronic hallucinosis . . . . .	1	1	2			
Chronic paranoid type . . . . .	2	—	2			
Alcoholic deterioration . . . . .	6	—	6			
Other types . . . . .	—	—	—			
Psychoses due to drugs and other exogenous toxins . . . . .				—	1	1
Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined . . . . .	—	1	1			
Psychoses with pellagra . . . . .				—	1	1
Psychoses with other somatic diseases . . . . .				2	—	2
Tuberculosis of the lungs . . . . .	2	—	2			
Manic-depressive psychoses . . . . .				16	17	33
Manic type . . . . .	8	9	17			
Depressive type . . . . .	8	7	15			
Stupor . . . . .	—	—	—			
Mixed type . . . . .	—	1	1			
Circular type . . . . .	—	—	—			
Involution melancholia . . . . .				3	6	9
Dementia præcox . . . . .				34	22	56
Paranoid type . . . . .	16	11	27			
Katatonic type . . . . .	13	8	21			
Hebephrenic type . . . . .	2	3	5			
Simple type . . . . .	3	—	3			
Paranoia and paranoid conditions . . . . .				1	16	17
Epileptic psychoses . . . . .				3	—	3
Deterioration . . . . .	—	—	—			
Clouded states . . . . .	2	—	2			
Other conditions:						
Post-epileptic mental enfeeblement . . . . .	1	—	1			
Psychoneuroses and neuroses . . . . .				—	2	2
Hysterical type . . . . .	—	1	1			
Psychasthenic type . . . . .	—	1	1			
Neurasthenic type . . . . .	—	—	—			
Anxiety neuroses . . . . .	—	—	—			
Psychoses with psychopathic personality . . . . .				1	1	2
Psychoses with mental deficiency . . . . .				1	5	6
Undiagnosed psychoses . . . . .				4	—	4
Without psychosis . . . . .				—	1	1
Epilepsy without psychosis . . . . .	—	—	—			
Alcoholism without psychosis . . . . .	—	—	—			
Drug addiction without psychosis . . . . .	—	—	—			
Psychopathic personality without psychosis . . . . .	—	—	—			
Mental deficiency without psychosis . . . . .	—	1	1			
Total . . . . .				149	139	288

*Psychoses of Voluntary Cases (Section 45, Chapter 504, Acts of 1909).*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Senile psychoses . . . . .	1	—	1	1	—	1
Simple deterioration . . . . .	—	—	—	—	—	—
General paralysis . . . . .	—	1	1	—	1	1
Dementia præcox . . . . .	—	1	1	—	1	1
Hebephrenic type . . . . .	—	—	—	—	—	—
Total . . . . .	1	1	2	1	2	3

*Psychoses of Emergency Cases (Section 42, Chapter 504, Acts of 1909).*

Traumatic psychoses . . . . .	1	—	1	1	—	1
Senile psychoses . . . . .	1	2	3	1	2	3
Depressed and agitated states . . . . .	1	—	1	—	—	—
Paranoid states . . . . .	—	2	2	—	2	2
Psychoses with cerebral arteriosclerosis . . . . .	2	—	2	2	—	2
Alcoholic psychoses . . . . .	—	1	1	—	1	1
Chronic hallucinosis . . . . .	—	1	1	—	1	1
Manic-depressive psychoses . . . . .	1	—	1	1	—	1
Depressive type . . . . .	1	—	1	—	—	—
Involution melancholia . . . . .	—	2	2	—	2	2
Dementia præcox . . . . .	2	1	3	2	1	3
Paranoid type . . . . .	1	1	2	—	—	—
Simple type . . . . .	1	—	1	—	—	—
Undiagnosed psychosis . . . . .	1	—	1	1	—	1
Total . . . . .	8	6	14	8	6	14

*Psychosis of Case held under Complaint or Indictment (Chapter 46, General Acts of 1917).*

Senile psychoses . . . . .	1	—	1	1	—	1
Simple deterioration . . . . .	1	—	1	—	—	—

*Psychoses of Temporary Care Cases (Chapter 174, General Acts of 1915).*

Traumatic psychoses . . . . .	1	—	1	1	—	1
Senile psychoses . . . . .	6	12	18	6	12	18
Simple deterioration . . . . .	4	6	10	—	—	—
Paranoid states . . . . .	2	6	8	—	—	—
Psychoses with cerebral arteriosclerosis . . . . .	5	1	6	—	—	—
Alcoholic psychoses . . . . .	3	—	3	—	—	—
Acute hallucinosis . . . . .	1	—	1	—	—	—
Alcoholic deterioration . . . . .	2	—	2	—	—	—

*Psychoses of Temporary Care Cases (Chapter 174, General Acts of 1915) —*  
*Concluded.*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Manic-depressive psychoses						
Manic type	1	1	1	—	1	1
Dementia præcox	3	—	2	3	2	5
Paranoid type	1	—	1			
Katatonic type	—	2	2			
Hebephrenic type						
Psychoses with mental deficiency	—	—	—	1	—	1
Total	—	—	—	19	16	35

*Psychoses of Observation Cases (Chapter 145, General Acts of 1919.)*

Psychoses with cerebral arteriosclerosis	—	—	—	2	—	2
General paralysis	—	—	—	2	1	3
Psychoses with Huntington's chorea	—	—	—	—	1	1
Alcoholic psychoses	—	—	—	3	—	3
Acute paranoid type	1	—	1			
Chronic paranoid type	1	—	1			
Alcoholic deterioration	1	—	1			
Dementia præcox	—	—	—	2	1	3
Paranoid type	1	1	2			
Simple type	1	—	1			
Psychoses with psychopathic personality	—	—	—	1	1	2
Psychoses with mental deficiency	—	—	—	1	—	1
Total	—	—	—	11	4	15

Fifty-nine temporary care cases (chapter 174, General Acts of 1915) were admitted during the year ending Sept. 30, 1921. Thirty-six were committed, 5 changed to emergency status, 3 to voluntary and 4 to observation status. Of the 7 discharges, 2, or 28.57 per cent, were discharged as recovered; 2, or 28.57 per cent, as unimproved; and 3, or 42.86 per cent, as without psychosis. Three died and 1 remained at the end of the statistical year.

One Boston police case (chapter 307, Acts of 1910) was admitted during the year. This was changed to observation status.

Twenty-three emergency cases (section 42, chapter 504, Acts of 1909) were admitted during the year. Of these, 20 cases

were committed, 1 was transferred to another institution, 1 died and 1 remained at the end of the statistical year.

Thirty-four observation cases (chapter 145, General Acts of 1919) were admitted during the year. Twenty-one were committed, 11 were discharged, 1 died and 1 case remained at the end of the statistical year. Of the 11 discharges, 3, or 27.27 per cent, were discharged as recovered; 2, or 18.18 per cent, as improved; 1, or 9.09 per cent, as unimproved; and 5, or 45.45 per cent, as without psychosis.

Five cases held under complaint or indictment (chapter 46, General Acts of 1917) were admitted during the year. Of these, 1 was discharged as unimproved and the remaining 4 are still in the institution.

Twenty-two voluntary cases (section 45, chapter 504, Acts of 1909) were admitted during the year. Two of these were committed, 7 discharged, 2 died and 11 remained at the end of the statistical year. Of the 7 discharges, 2, or 28.57 per cent, were discharged as recovered; 4, or 57.14 per cent, as improved; and 1, or 14.29 per cent, as without psychosis.

The following table shows the psychoses of all cases admitted as temporary care and subsequently committed: —

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Traumatic psychoses . . . . .	.	.	.	2	—	2
Senile psychoses . . . . .	.	.	.	7	14	21
Simple deterioration . . . . .	4	6	10			
Depressed and agitated states . . . . .	1	—	1			
Paranoid states . . . . .	2	8	10			
Psychoses with cerebral arteriosclerosis . . . . .	.	.	.	9	1	10
General paralysis . . . . .	.	.	.	2	1	3
Psychoses with Huntington's chorea . . . . .	.	.	.	—	1	1
Alcoholic psychoses . . . . .	.	.	.	6	1	7
Acute hallucinosis . . . . .	1	—	1			
Acute paranoid type . . . . .	1	—	1			
Chronic hallucinosis . . . . .	—	1	1			
Chronic paranoid type . . . . .	1	—	1			
Alcoholic deterioration . . . . .	3	—	3			
Manic-depressive psychoses . . . . .	.	.	.	1	1	2
Manic type . . . . .	.	1	1			
Depressive type . . . . .	1	—	1			
Involution melancholia . . . . .	.	.	.	—	2	2

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Dementia præcox . . . . .	4	2	6	7	4	11
Paranoid type . . . . .	1	1	2			
Katatonic type . . . . .	1	1	2			
Hebephrenic type . . . . .	2	1	3			
Simple type . . . . .						
Psychoses with psychopathic personality . . . . .				1	1	2
Psychoses with mental deficiency . . . . .				2	-	2
Undiagnosed psychoses . . . . .				1	-	1
Total . . . . .				38	26	64

The following table shows the psychoses of all admissions during the year, exclusive of transfers:—

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Traumatic psychoses . . . . .				3	-	3
Senile psychoses . . . . .				24	62	86
Simple deterioration . . . . .	15	31	46			
Presbyophrenic type . . . . .	-	2	2			
Delirious and confused states . . . . .	-	-	-			
Depressed and agitated states . . . . .	3	6	9			
Paranoid states . . . . .	6	23	29			
Presenile types . . . . .	-	-	-			
Psychoses with cerebral arteriosclerosis . . . . .				41	18	59
General paralysis . . . . .				38	15	53
Psychoses with cerebral syphilis . . . . .				1	1	2
Psychoses with Huntington's chorea . . . . .				-	1	1
Psychoses with brain tumor . . . . .				-	-	-
Psychoses with other brain or nervous diseases . . . . .				-	-	-
Alcoholic psychoses . . . . .				25	6	31
Pathological intoxication . . . . .	1	-	1			
Delirium tremens . . . . .	1	-	1			
Acute hallucinosis . . . . .	6	-	6			
Acute paranoid type . . . . .	2	1	3			
Korsakow's psychosis . . . . .	1	1	2			
Chronic hallucinosis . . . . .	2	2	4			
Chronic paranoid type . . . . .	2	2	4			
Alcoholic deterioration . . . . .	10	-	10			
Other types, acute or chronic . . . . .	-	-	-			
Psychoses due to drugs and other exogenous toxins . . . . .				-	2	2
Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined . . . . .	-	2	2			
Psychoses with pellagra . . . . .				-	1	1
Psychoses with other somatic diseases . . . . .				2	3	5
Tuberculosis of the lungs . . . . .	2	1	3			
Encephalitis lethargica . . . . .	-	1	1			
Possibly beginning glaucoma . . . . .	-	1	1			

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Manic-depressive psychoses . . . . .				45	45	90
Manic type . . . . .	22	21	43			
Depressive type . . . . .	21	23	44			
Stupor . . . . .	—	—	—			
Mixed type . . . . .	2	1	3			
Circular type . . . . .	—	—	—			
Involution melancholia . . . . .				3	9	12
Dementia præcox . . . . .				59	40	99
Paranoid type . . . . .	30	22	52			
Katatonic type . . . . .	17	8	25			
Hebephrenic type . . . . .	4	9	13			
Simple type . . . . .	8	1	9			
Paranoia and paranoid conditions . . . . .				1	23	24
Epileptic psychoses . . . . .				3	—	3
Deterioration . . . . .	—	—	—			
Clouded states . . . . .	2	—	2			
Other conditions:						
Post-epileptic mental enfeeblement . . . . .	1	—	1			
Psychoneuroses and neuroses . . . . .				1	2	3
Hysterical type . . . . .	—	1	1			
Psychasthenic type . . . . .	1	1	2			
Neurasthenic type . . . . .	—	—	—			
Anxiety neuroses . . . . .	—	—	—			
Psychoses with psychopathic personality . . . . .				5	3	8
Psychoses with mental deficiency . . . . .				9	6	15
Undiagnosed psychoses . . . . .				7	1	8
Without psychosis . . . . .				9	6	15
Epilepsy without psychosis . . . . .	—	—	—			
Alcoholism without psychosis . . . . .	1	—	1			
Drug addiction without psychosis . . . . .	—	—	—			
Psychopathic personality without psychosis . . . . .	3	1	4			
Mental deficiency without psychosis . . . . .	—	3	3			
Others:						
Neurasthenia . . . . .	1	—	1			
Question of psychosis . . . . .	4	1	5			
Family dissension . . . . .	—	1	1			
Total . . . . .				276	244	520

The psychoses represented by the cases discharged from the hospital during the year were as follows: traumatic psychoses, 2, or 1.27 per cent; senile psychoses, 9, or 5.69 per cent; psychoses with cerebral arteriosclerosis, 3, or 1.90 per cent; general paralysis, 7, or 4.43 per cent; psychoses with cerebral syphilis, 2, or 1.27 per cent; alcoholic psychoses, 17, or 10.76 per cent; psychoses with other somatic diseases, 6, or 3.80 per cent; manic-depressive psychoses, 54, or 34.17 per cent; dementia præcox, 33, or 20.90 per cent; paranoia or paranoid conditions, 8, or 5.08 per cent; psychoneuroses and neuroses, 3, or 1.90 per cent; psychoses with psychopathic personality, 4, or

2.54 per cent; psychoses with mental deficiency, 7, or 4.43 per cent; and without psychosis, 3, or 1.90 per cent.

The total number of cases discharged during the year was 158. Of this number, 40, or 25.32 per cent, were discharged as recovered; 83, or 52.53 per cent, as improved; 32, or 20.25 per cent, as unimproved; and 3, or 1.90 per cent, as without psychosis. Of the 40 recovered cases, 32, or 80 per cent, were cases of manic-depressive psychoses; 4, or 10 per cent, alcoholic psychoses; and 3, or 8 per cent, psychoses with other somatic diseases. Of the 83 cases discharged as improved, 23, or 27.71 per cent, were cases of dementia præcox; 21, or 25.3 per cent, manic-depressive psychoses; 13, or 15.66 per cent, alcoholic psychoses; 6, or 7.23 per cent, psychoses with mental deficiency; 5, or 6.02 per cent, paranoia or paranoid conditions; 4, or 4.82 per cent, psychoses with psychopathic personality; and 2, or 2.41 per cent, each of senile psychoses, general paralysis, psychoses with cerebral syphilis, and psychoses with other somatic diseases. Of the 32 cases discharged as unimproved, 10, or 31.25 per cent, were dementia præcox; 7, or 21.88 per cent, senile psychoses; 5, or 15.62 per cent, general paralysis; 3, or 9.38 per cent, paranoia or paranoid conditions; 2, or 6.25 per cent, psychoses with cerebral arteriosclerosis; and 2, or 6.25 per cent, psychoneuroses or neuroses.

A study of the hospital residence of the cases discharged during the statistical year is of considerable interest. Seven, or 4.43 per cent, were discharged after a residence of less than one month; 48, or 30.37 per cent, after a residence of from one to six months; 35, or 22.15 per cent, after a residence of six months to one year; 27, or 17.08 per cent, one to two years; 13, or 8.22 per cent, two to three years; 6, or 3.79 per cent, three to four years; six, or 3.79 per cent, four to five years; 11, or 7.02 per cent, five to ten years; 3, or 1.89 per cent, over ten years; and 2, or 1.26 per cent, unascertained.

Of the 272 deaths occurring during the year, 132, or 48.6 per cent, represented cases dying at the age of sixty or over. In 80 cases, or 29.41 per cent, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: bronchopneumonia, 95, or 34.92 per cent; tuberculosis of



the lungs, 34, or 12.5 per cent; arteriosclerosis, 20, or 7.36 per cent; general paralysis of the insane, 19, or 6.99 per cent; diarrhœa and enteritis, 18, or 6.62 per cent; chronic endocarditis, 16, or 5.86 per cent; chronic myocarditis, 14, or 5.15 per cent; cerebral hemorrhage, 14, or 5.15 per cent; and lobar pneumonia, 10, or 3.67 per cent.

The psychoses represented by deaths occurring in the hospital during the year were as follows: senile psychoses, 71, or 26.10 per cent; psychoses with cerebral arteriosclerosis, 57, or 20.96 per cent; general paralysis, 60, or 22.06 per cent; psychoses with cerebral syphilis, 4, or 1.47 per cent; alcoholic psychoses, 7, or 2.57 per cent; psychoses with other somatic diseases, 3, or 1.10 per cent; manic-depressive psychoses, 10, or 3.68 per cent; involution melancholia, 7, or 2.57 per cent; dementia præcox, 38, or 13.97 per cent; paranoia or paranoid conditions, 4, or 1.47 per cent; and epileptic psychoses, 5, or 1.84 per cent. Of the 71 cases of senile psychoses dying in the hospital during the year, 23, or 32.39 per cent, were due to bronchopneumonia. Of the 57 cases of arteriosclerotic psychoses, death was due in 27, or 47.37 per cent, to bronchopneumonia, and in 10, or 17.54 per cent, death was attributed directly to arteriosclerosis. Of the sixty cases of general paralysis, 29, or 48.33 per cent, were reported as dying from bronchopneumonia, and in 19, or 31.67 per cent, general paralysis of the insane was given as the cause of death. Of the 38 cases of dementia præcox, death was due in 24, or 63.16 per cent, to pulmonary tuberculosis, and in 4, or 10.53 per cent, to bronchopneumonia. Of the 7 cases of involution melancholia, the cause of death was reported as bronchopneumonia in 2, or 28.57 per cent.

Of the 272 patients dying in the hospital during the year the total duration of hospital residence was as follows: one year or less, 144, or 52.94 per cent; one to two years, 41, or 15.07 per cent; two to three years, 22, or 8.09 per cent; three to four years, 17, or 6.25 per cent; four to five years, 14, or 5.14 per cent; five to six years, 3, or 1.10 per cent; six to seven years, 6, or 2.20 per cent; seven to eight years, 4, or 1.47 per cent; eight to nine years, 6, or 2.20 per cent; nine to ten years, 3, or 1.10 per cent; ten to fifteen years, 7, or 2.57 per cent; fifteen

to twenty years, 4, or 1.47 per cent; and over twenty years, 1, or .37 per cent. The average duration of hospital residence of the cases dying in the hospital during the year was two years, two months and twenty-seven days. The psychoses showing the longest hospital residence were as follows: dementia præcox, eighteen and twenty years; senile psychoses, thirteen and eighteen years; and alcoholic psychoses, thirteen years.

The following general statistical information relating to the ward service should be of interest:—

	Males.	Females.	Totals.	Percentage.
Average daily population . . . . .	824.69	1,037.67	1,862.36	100.00
In bed . . . . .	76.54	77.86	154.40	8.29
In restraint . . . . .	4.33	3.17	7.50	.40
In seclusion . . . . .	5.39	10.80	16.30	.87
Eating in dining rooms . . . . .	725.29	817.63	1,543.92	82.90
Eating on wards . . . . .	99.40	220.04	319.44	17.10
Fed by nurses . . . . .	29.57	30.51	60.08	3.22
Idle . . . . .	347.08	600.48	947.56	50.88
Employed . . . . .	477.61	437.19	914.80	49.12
Parole of grounds . . . . .	148.64	61.67	210.31	11.29
Out for exercise . . . . .	606.84	591.53	1,198.37	64.35
Noisy . . . . .	42.98	124.48	167.46	8.99
Violent . . . . .	.56	37.75	38.31	2.06
Destructive . . . . .	3.22	33.47	36.69	1.97
Soiled or wet . . . . .	53.00	115.21	168.21	9.03
Taking medicine . . . . .	14.05	21.25	35.30	1.89
Infirm . . . . .	266.84	311.73	578.57	31.07

The percentages shown in the above table represent the average daily number in each instance for the entire year, thus: the average daily number of patients in bed was 154.40, or 8.29 per cent of the average daily population, and the average daily number out for exercise was 1,198.37, or 64.35 per cent of the average daily population. The table shows an unusually large percentage of our population to consist of bed cases. As has already been explained, this is largely due to the fact that the senile and infirm cases cannot readily be removed to institutions outside of the metropolitan district, and come to the

Boston State Hospital. The hospital has, for this reason, an infirmary class approximating 30 per cent of the total number of cases cared for. The number of patients in restraint and seclusion, as shown by the above table, is exceedingly small, although larger than the percentages shown for the preceding year, owing to the fact that there has been such an unfortunate shortage of nurses and attendants. If the percentage of infirm cases is eliminated (and this, of course, includes the bed patients), the average daily number going out for exercise must be looked upon as quite large. The average daily number of noisy patients is of considerable interest. The number of patients actually violent is not at all consistent with the popular ideas regarding institutions of this type. The number of patients actually employed in useful occupations should not be looked upon as small if the percentage of bed cases is taken into consideration. The number actually taking medicine would be considerably smaller if it were not for the senile and infirm population.

#### GENERAL HEALTH OF THE HOSPITAL.

The general health of the hospital has been very satisfactory during the past year. There has been no continuation of the influenza epidemic which was such a serious problem at various times during the two years preceding. In the summer months of 1921 there was a mild epidemic of enteritis in the various buildings of both the East and West groups. This appears to have been part of a general epidemic of the same nature which was prevalent throughout the city of Boston and the surrounding territory. The disease, as a rule, assumed a mild form, usually with a slight rise of temperature, occasionally with some abdominal pain, in some instances with the presence of blood and mucus in the intestinal contents, and almost invariably followed by a noticeable prostration lasting for about a week. As a general rule these patients were in bed for two or three days only. Death followed, however, in some of the senile and arteriosclerotic cases. This infection was apparently related in no way to the typhoid or paratyphoid diseases and was not a manifestation of either amebic or bacillary dysentery. Exhaustive laboratory studies failed to disclose the nature of

the epidemic, which many practitioners in the city have thought to be due to influenza. It disappeared entirely during the months of October and November.

There was the usual number of minor accidents and injuries in the wards of the hospital throughout the year. All of these were thoroughly investigated and reported in the usual manner to the Board of Trustees and the Department of Mental Diseases.

An attempt has been made during the past year to keep as comprehensive records as possible of all the general diseases occurring in the wards of the hospital.

The opening of a new operating room in the F building of the West Group furnishes us with adequate facilities for any operative procedures which may be necessary for the male patients of that group. We have for some years had an excellent operating outfit in the B building of the West Group, which is now used entirely for female patients. We are still badly in need of wards for the isolation of tuberculous cases and for the special care of contagious diseases.

The number of deaths occurring during the year is shown on page 79 and the autopsy rate in the pathological laboratory report for the year.

#### EMPLOYEES.

The problem of maintaining an adequate force of employees in the hospital has not been nearly so serious as it was during the preceding year. On Sept. 30, 1920, there were 321 persons in the employ of the hospital. During the year 808 were appointed, 669 resigned and 44 were discharged. Eleven hundred and twenty-nine persons occupied 419 positions, — a rotation of 2.69. The average daily number of employees during the year was 367.24, with 9.29 per cent of vacancies. The average daily number in the ward service was 208.62, with 10.24 per cent of vacancies. The ratio of ward employees was 1 to 9.08 patients, and of all employees, 1 to 5.10. Although this represents a considerable improvement over the past year, the shortage, especially in the ward service, has been such as to interfere somewhat with the efficient and proper care of patients. This has affected the medical service in various ways. Less patients have been employed and there has been more restraint and

seclusion. The lack of ward supervision, moreover, has resulted in a destruction of clothing and other ward supplies that is of considerable importance from a financial point of view. The limited number of nurses and attendants has, of course, materially interfered with our ability to satisfactorily handle the large number of visitors calling at the hospital to see their relatives and friends. The total number of visits made to the patients during the last year was 64,210. We often have 500 or 600 visitors during one day, the highest number on any one day during the year being 920. The decrease in the number of nurses is, of course, a material factor in increasing accidents, injuries and escapes. At the present time there is no difficulty in obtaining the services of male employees. It is still difficult, however, to maintain an adequate force of female nurses and attendants. This is due, doubtless, in part to the fact that the hours of duty are long and association with mental cases is not attractive to those who are not familiar with this line of work. This is a difficulty, however, which has affected the general hospitals as much as it has the institutions for mental diseases. Under the circumstances, if an increased compensation is not possible for ward employees, certainly no reduction should be contemplated. One of the factors which has interfered with our maintenance of an adequate force of ward employees heretofore has been the lack of comfortable living quarters. The occupancy of the new nurses' home in the East Group has remedied this situation in a way which has already been productive of definite results. At the present time we are unable to properly house male ward attendants. The employees' cottage occupied by men has a capacity of only 42. Our quota of male attendants is 110. It has been necessary for them to be quartered in attics and in many other places which are far from being desirable. We are badly in need of a new building for male ward attendants. We have no satisfactory place for attendants and other employees engaged in outside work. The old farmhouse in the West Group, which furnishes quarters for only 19 persons, is in such a condition that it should be torn down and replaced as soon as possible. There has always been difficulty in inducing our employees to live in it. The fact that our male attendants have been scattered around in so many

different places has of course made it difficult to keep them under proper supervision.

The shortage of staff quarters is also a serious matter which should be remedied as soon as the cost of construction will permit. Various officers and employees assigned to the East Group have been compelled to live in buildings in the West Group, nearly a mile away. There are no quarters in the East Group for a pathologist, who should be located in some place from which he can conveniently reach the laboratory.

#### THE MEDICAL SERVICE.

There has been a considerable number of changes in the medical service during the year. Dr. Charles J. Bolton, who has been an assistant physician at the hospital since Jan. 15, 1920, resigned on Jan. 14, 1921. Dr. William T. Merrill, an assistant physician, who has been connected with the institution since March 17, 1919, resigned on March 9, 1921, to enter the United States Public Health Service. Dr. Leo T. Kewer, who has been in the service since Feb. 1, 1920, resigned on March 25, 1921, for the same purpose. Dr. Shichi Uyematsu, who has been connected with the Danvers State Hospital for some time, was appointed pathologist on April 1, 1921, to succeed Dr. Oscar J. Raeder, who resigned in March, 1920, for the purpose of going abroad. Dr. Uyematsu has had an unusual experience as a pathologist and is associated with the Harvard Medical School in the capacity of an instructor. Dr. Herbert E. Herrin was appointed assistant physician on July 23, 1921. He was connected with the Concord State Hospital for nine years and has had a long psychiatric experience. I regret to report the death of Dr. Florence H. Abbot, which occurred on Aug. 1, 1921. Dr. Abbot was graduated from Smith College in 1891 and received her medical degree from the Woman's Medical College in New York City in 1897. She has spent twenty years or more in hospitals for mental diseases and was appointed to the staff of the Boston State Hospital on July 1, 1917. Dr. Abbot was an unusually well-qualified physician, thoroughly interested in her work and devoted to the welfare of the patients in her charge. Her death constitutes a material loss not only to this institution but to the State hospital service. Dr. Marie

C. S. Lindsay, who has been connected with the hospital since Dec. 1, 1920, resigned on October 1 on account of her health. Dr. Frederick H. Gebhardt was appointed assistant physician on Oct. 27, 1921. He was graduated from the medical department of the University of Vermont and has spent several years in the United States Navy. Dr. Lewellyn H. Rockwell of Boston was appointed consulting surgeon on April 18, 1921.

The work of the out-patient department of the hospital includes the supervision of patients in family care, those at home on visit, the after care of cases discharged from the custody of the hospital, and medical advice given to numerous persons who visit the hospital for the purpose of consulting members of the staff on matters pertaining to their own welfare or that of their family or relatives. The patients who have been allowed to go home on visit, or who have left the hospital temporarily for family care, are visited at frequent intervals by the social service workers of the hospital. Patients who are at home on visit are also required to present themselves at the hospital at regular intervals for observation. Considerable supervision is also given to former patients who have been discharged but who are kept under observation by the social workers and the physicians. Some cases appearing for consultation are accepted as voluntary patients. Others are referred to their family physicians or to the Boston Psychopathic Hospital. The following is a report of the movement of population of patients under the supervision of the out-patient department:—

	Males.	Females.	Totals.
In family care Sept. 30, 1920 . . . . .	—	8	8
On escape Sept. 30, 1920 . . . . .	6	2	8
On visit Sept. 30, 1920 . . . . .	81	156	237
Dismissed to family care during the year . . . . .	—	3	3
Dismissed on visit during the year . . . . .	1,313	827	2,140
Escaped during the year . . . . .	20	4	24
Admitted from family care . . . . .	—	3	3
Admitted from escape . . . . .	19	4	23
Admitted from visit . . . . .	1,239	732	1,971
Admitted from family care and discharged . . . . .	—	—	—
Admitted from escape and discharged . . . . .	5	2	7
Admitted from visit and discharged . . . . .	52	86	138
In family care Sept. 30, 1921 . . . . .	—	8	8
On escape Sept. 30, 1921 . . . . .	2	—	2
On visit Sept. 30, 1921 . . . . .	103	165	268

The following is a summary of the social service work done during the year under the direction of Miss Marie L. Donohoe:—

	Males.	Females.	Totals.
Total number of cases considered during the year:	453	792	1,245
(a) New cases . . . . .	142	157	299
(b) Renewed cases . . . . .	63	113	176
(c) Continued cases . . . . .	204	497	701
(d) Discharged cases and school clinic cases . . . . .	44	25	69
Sources of new cases:			
(a) Referred by physicians . . . . .	87	104	191
(b) Referred by other agencies . . . . .	40	30	70
(c) Referred by friends or relatives . . . . .	9	14	23
(d) Referred by patient's own initiative . . . . .	6	9	15
(e) Selected by social worker . . . . .	44	25	69
Purposes for which new cases were referred:			
(a) Medical history . . . . .	52	55	107
(b) Medical-social history . . . . .	28	20	48
(c) Investigation of home conditions . . . . .	25	60	85
(d) Social investigations . . . . .	53	63	116
(e) Special investigations . . . . .	60	70	130
(f) Supervision while at home (general) . . . . .	62	211	273
(g) Supervision while at home (special) . . . . .	55	154	209
(h) Family assistance . . . . .	57	66	123
(i) Follow-up work (medical) . . . . .	20	34	54
(j) Family care department . . . . .	1	40	41
(k) Miscellaneous (school histories) . . . . .	40	19	59
Medical diagnoses of new cases:			
1. Traumatic psychoses . . . . .	2	—	2
2. Senile psychoses . . . . .	11	14	25
3. Psychoses with cerebral arteriosclerosis . . . . .	4	8	12
4. General paralysis . . . . .	14	5	19
5. Psychoses with cerebral syphilis . . . . .	4	1	5
6. Psychoses with Huntington's chorea . . . . .	—	1	1
7. Psychoses with brain tumor . . . . .	—	—	—
8. Psychoses with other brain or nervous diseases . . . . .	—	2	2
9. Alcoholic psychoses . . . . .	14	9	23
10. Psychoses due to drugs and other exogenous toxins . . . . .	1	1	2
11. Psychoses with pellagra . . . . .	—	—	—
12. Psychoses with other somatic diseases . . . . .	1	1	2
13. Manic-depressive psychoses . . . . .	23	29	52
14. Involution melancholia . . . . .	1	5	6
15. Dementia præcox . . . . .	35	40	75
16. Paranoia or paranoid condition . . . . .	7	9	16
17. Epileptic psychoses . . . . .	2	—	2
18. Psychoneuroses and neuroses . . . . .	—	2	2
19. Psychoses with psychopathic personality . . . . .	2	2	4
20. Psychoses with mental deficiency . . . . .	2	8	10
21. Undiagnosed . . . . .	11	8	19
22. Without psychosis . . . . .	6	6	12
Pending . . . . .	6	12	18
School clinic cases:			
Mental deficiency without psychosis . . . . .	40	19	59
Social problems in all cases:			
(a) Disease:			
Mental . . . . .	134	223	357
Physical . . . . .	12	45	57
(b) Poverty . . . . .	20	50	70
(c) Environmental problems . . . . .	12	55	67
(d) Sex problems . . . . .	—	8	8
(e) Educational problems . . . . .	17	40	57
Illiteracy . . . . .	—	2	2
(f) Employment problems . . . . .	51	82	133
(g) Family problems . . . . .	70	150	220
(h) Legal problems . . . . .	62	19	81
(i) Moral problems:			
Drug habitués with psychoses . . . . .	—	2	2
Alcoholic cases with psychoses . . . . .	2	6	8
Wayward tendencies . . . . .	2	10	12
Vacillating interests . . . . .	—	10	10
(j) Criminality . . . . .	—	1	1
(k) Unclassed . . . . .	3	15	18
(l) No social problem . . . . .	29	55	84
(m) School problems . . . . .	40	19	59



	Males.	Females.	Totals.
Nature of service rendered in all cases:			
Arrangements made for hospital or medical care (number of cases)	22	29	51
Arrangements made for occupational therapy	—	—	—
Arrangements made for nursing service	1	10	11
Arrangements made for readjustment:			
(a) Home	27	54	81
(b) Work	28	42	70
(c) Recreation	6	14	20
(d) Church	—	1	1
Arrangements made for community supervision (number of cases)	—	—	—
Referred to relief agencies	21	31	52
Referred to special agencies	47	28	75
Referred to venereal disease clinics	1	3	4
Referred for follow-up work (Psychopathic Hospital)	12	6	18
Referred to employment agencies	23	25	48
Educational work:			
Hygiene	30	59	89
Industry	19	7	26
School	1	1	2
Home making	2	13	15
Legal aid secured (number of cases)	31	7	38
Advice to patients	31	100	131
Advice to relatives	58	88	146
Family work:			
Children	18	37	55
Rehabilitation	23	57	80
No social service rendered (number of cases)	40	56	96
Miscellaneous:			
Looking after property, locating relatives, etc.	64	112	176
Total number of visits	589	988	1,577
To patients on ward	102	142	244
To patients in community	131	331	462
To relatives of patients	224	342	566
To other agencies	132	173	305
School clinics:			
Histories taken	40	19	59
Boarding patients:			
Visits to boarding patients	—	54	54
Patients placed during the year	—	2	2
Patients replaced during the year	—	1	1
Number of boarding homes investigated	—	12	12
Disposition of social cases:			
Cases discharged during the year:			
Hospital cases	40	76	116
School clinic and other outside cases	44	25	69
Cases to be continued	188	234	422
Cases closed	141	412	553
Cases in care of other hospitals	3	10	13
Cases in care of other agencies	31	15	46
No action taken	10	20	30

The personnel of the social service department now consists of three paid workers, — a head social service worker and two assistants. During the greater part of the time we have also had the services of several students. This has enabled the social service department to cover a much wider field. The number of workers should, however, be increased and higher salaries rendered available.

The routine work of the pathological laboratory, under the direction of Dr. Shichi Uyematsu, may be summarized as follows: —

Autopsies . . . . .	70
Blood examinations:	
Cell counts (red and white), . . . . .	119
Cell counts (differential), . . . . .	66
Cerebrospinal fluid examinations:	
Gold sol, albumin, globulin, cells . . . . .	54
Bacteriological examination of milk . . . . .	4
Microscopical examinations, bacteria, miscellaneous . . . . .	43
Sputum examinations . . . . .	50
Throat cultures . . . . .	19
Microscopic sections made:	
Number of cases . . . . .	102
Surgical specimen . . . . .	1
Urinalyses . . . . .	633
Vaccine, autogenous . . . . .	1
Fecal examinations . . . . .	2
Wassermann reactions:	
Blood serum . . . . .	332
Cerebrospinal fluid . . . . .	58
Neurosyphilis therapy:	
Arsphenamine, intravenous . . . . .	127
Diarsenol, intravenous . . . . .	5
Mercury, intramuscular . . . . .	5
Number treated . . . . .	20

The number of deaths in the hospital during the year was 277, of which 70 came to autopsy, making the autopsy percentage for the year 25.27.

The following table shows the psychoses represented in cases coming to autopsy: —

Senile psychoses . . . . .	18
Psychoses with cerebral arteriosclerosis . . . . .	10
General paralysis . . . . .	17
Psychosis with cerebral syphilis . . . . .	3
Alcoholic psychoses . . . . .	3
Psychosis with brain tumor . . . . .	1
Psychosis due to drugs (opium) . . . . .	1
Psychosis with somatic disease . . . . .	1
Manic-depressive psychoses . . . . .	3
Dementia præcox . . . . .	8

Paranoid condition . . . . .	1
Epileptic psychoses . . . . .	3
Psychosis with mental deficiency . . . . .	1
<hr/>	
Total . . . . .	70

In the following table the causes of death of these cases are shown: —

Bronchopneumonia . . . . .	17
General paralysis . . . . .	10
Pulmonary tuberculosis . . . . .	7
Arteriosclerosis . . . . .	6
Lobar pneumonia . . . . .	4
Chronic interstitial myocarditis . . . . .	3
Cerebral hemorrhage . . . . .	3
Cardiorenal-vascular disease . . . . .	3
Status epilepticus . . . . .	2
Acute vegetative endocarditis . . . . .	2
Acute enterocolitis . . . . .	2
Exhaustion . . . . .	2
Otitis media . . . . .	1
Cerebral tumor . . . . .	1
Mitral stenosis . . . . .	1
Acute colitis . . . . .	1
Purulent trachio-bronchitis . . . . .	1
Asphyxiation . . . . .	1
Cardiac decompensation . . . . .	1
Intestinal strangulation . . . . .	1
Chronic endocarditis . . . . .	1
<hr/>	
Total . . . . .	70

The surgical work of the hospital has been largely in the charge of Dr. Irving J. Walker of Boston, the attending surgeon, who visits the hospital regularly and has performed several operations. The following is a summary of the more important surgical work of the year, including cases sent to the City Hospital for operation at that place: —

Amputation of hand . . . . .	1
Appendectomy . . . . .	2
Colectomy . . . . .	1
Curetment of right ulnar . . . . .	1
Epithelioma, lower lip . . . . .	1

Herniotomy . . . . .	1
Hysterectomy . . . . .	1
Intestinal obstruction . . . . .	1
Prostatectomy . . . . .	1
Removal of carbuncle . . . . .	1

The dental work of the hospital has been carried on actively during the last year by the resident dentist, Dr. Lawrence H. Stone. The following is a summary of the work of this department:—

Abscesses treated . . . . .	5
Antrum treatments . . . . .	5
Cleanings . . . . .	2,526
Examinations . . . . .	1,428
Extractions:	
Roots . . . . .	1,055
Teeth . . . . .	676
Fillings . . . . .	926
Gums treated . . . . .	209
Miscellaneous . . . . .	163
Nerve canal treatments . . . . .	26
Plates . . . . .	5
Prophylaxis . . . . .	6
Pyorrhea treatments . . . . .	433
Root canal treatments . . . . .	9
Scaling . . . . .	53
Teeth treated . . . . .	30
Employees treated . . . . .	9
Patients treated . . . . .	2,561

The hydrotherapeutic work of the hospital has been carried on as usual in the East and West groups by the hydrotherapist, Dr. Rebekah B. Wright. Systematic instruction has been given to the members of the nurses' training school in this work, as well as to several representatives of other institutions.

The work of the training school for nurses has been carried on very successfully by the superintendent of nurses, Miss Mary Alice McMahon, R.N., during the year just ended. The affiliation of our school with that of the Boston City Hospital has been a very advantageous arrangement to us, each nurse spending twelve months at that institution acquiring a familiarity with general hospital work, which is a valuable supple-

ment to the instruction carried on here. The graduating exercises of the training school for nurses were held on Thursday evening, June 16, at the chapel in the East Group. The address of the evening was delivered by Dr. C. Macfie Campbell, professor of psychiatry at the Harvard Medical School and director of the Boston Psychopathic Hospital, and the diplomas were presented to the graduating class by Mrs. Sydney Dreyfus, representing the Board of Trustees. The following nurses completed the prescribed course of instruction and received their diplomas on that occasion: Josephine Claire Boutilier, Leora Marie Branigan, Elizabeth Margaret Bremner, Marguiereta Francais Campbell, Catherine Marie Darcey, Ann Elizabeth Douglas, Helen Cicelia Gardella, Katherine Agnes Mulligan, Jessie Gillis MacArthur, Mary MacIntyre, Ruby Mae Nickerson, Jennie Arey O'Brien, Mary Georgiana Petit, Pauline Richman, Vica Kathleen Savoy, Ollie Filena Smith, Katherine Alice Tanguay. The junior class for 1921-22 consists of 19, the intermediate class of 9, and the senior class of 12. Eleven are now receiving their instruction for the intermediate year at the Boston City Hospital. Fifteen graduates of our training school are now employed in the wards of the institution.

Staff meetings have been held as usual during the year, alternating between the East and West groups. Efforts have been made to present all new admissions at staff meetings, as well as all cases about to leave the hospital on visit or cases to be discharged.

#### OCCUPATIONS AND INDUSTRIES.

Occupational work has been materially extended in the ward service during the year and we now have three occupational therapists on duty in the West Group and one in the East Group. This work at the present time is under the very efficient direction of Miss Frances E. Wood, who has for a number of years been connected with the Devereux Mansion at Marblehead. It is hoped that several more workers can be added during the coming year as the field cannot be covered properly by the number now employed. It has been found difficult to obtain occupational therapists at the rate of pay authorized as better inducements are offered in other States. A systematic attempt has been made to interest in occupations

of some kind as many of the patients in the wards as can be employed under existing circumstances and who are unable for any reason to go to the industrial room. Occupational work has been carried on during the year in buildings A, B, C and D in the East Group and buildings A, B, C and D in the West Group.

Industrial work in the East Group consists of basketry, rug making, weaving, lace making, embroidery, knitting, crocheting, sewing, mending, etc. About 100 patients are occupied daily in the industrial room in the East Group. The estimated value of the articles made during the year was \$3,613.65. The industrial work for men is carried on entirely in the West Group in the basement of Building B. This work includes shoe repairing, the manufacture of toweling, shirting, overalls, men's stockings, repairs to rubber materials, mattress making, mattress renovating, the manufacture of various kinds of brushes, brooms, coat hangers, hats and various other articles. The value of articles produced during the year is estimated at \$12,204.56. The articles produced in the occupational and industrial departments of the hospital for the year represented a total valuation of \$15,848.21.

#### AGRICULTURAL ACTIVITIES OF THE YEAR.

The agricultural work of the institution has been carried on very efficiently during the past year under the direction of Mr. Lawrence Olsen. Owing to the number of employees available, the unfavorable weather, etc., the farm production for the year has not been as satisfactory as we had hoped it would be. There was a total of 145 acres under cultivation. This consisted of 25 acres devoted to field crops and 26 to gardening, in addition to which there were 89 acres of meadowland and 5 of orchards and small fruits. The estimated value of farm products during the year was \$16,264.61.

I wish to call attention again to the necessity of purchasing a farm for the hospital. The hospital site consists of only 232 acres. The forty buildings belonging to the institution take up a large amount of this space and leave but comparatively little land available for farming and gardening. It should be remembered that a considerable amount of land is necessary for

the recreation of patients. The present development of the hospital does not leave much room available for farming, nor is it possible to purchase any more land in this vicinity at any reasonable cost. The report of the agricultural expert of the Department of Mental Diseases, as has been noted previously, shows that an institution of the size of the Boston State Hospital should cultivate approximately 700 acres of land. I wish to again call attention to the necessity of purchasing several hundred acres of farm land within ready reach of the hospital. The per capita cost of maintenance would be materially lowered if a farm colony could be established and extensive agricultural work carried on at some place not too distant. The increasing number of buildings has reduced the amount of space available for gardening purposes. If we could establish a farm in the country, it would be possible for us to maintain a dairy, raise poultry and furnish garden products at a considerable saving. Farm and gardening activities cannot be carried on on a hospital site so limited in size and located, as this one is, in a large city.

#### FINANCIAL STATEMENT.

The Legislature made the following appropriations for new construction during the session of 1919, as was shown in the annual report for that year: for building, furnishing and equipping a home to accommodate 90 nurses, a sum not exceeding \$80,000; for building, furnishing and equipping a congregate dining room for the West Group, a sum not exceeding \$100,000; for building, furnishing and equipping a congregate dining room for the East Group, a sum not exceeding \$110,000. These amounts not being adequate, owing to the high cost of construction at the time, they were supplemented by the Legislature during its 1920 session as follows: for the nurses' home in the East Group, \$24,000 (chapter 225 of the Acts of 1920) and \$33,500 (chapter 629 of the Acts of 1920); for the kitchen and dining room building in the West Group, \$60,000 (chapter 225 of the Acts of 1920) and \$50,000 (chapter 629 of the Acts of 1920); for the kitchen and dining room building in the East Group, \$42,000 (chapter 629 of the Acts of 1920). The following supplemental appropriations were made by the Legislature

in chapter 203 of the Acts of 1921: for the nurses' home in the East Group, \$15,200; for the kitchen and dining room building in the West Group, \$14,100. This rendered the following totals available for the above-mentioned purposes: for the nurses' home in the East Group, \$152,700; for the kitchen and dining room building in the West Group, \$224,100; for the kitchen and dining room building in the East Group, \$152,000. In addition to this, the following amounts were appropriated for the Boston State Hospital during the 1921 session of the Legislature; for an addition to the present laundry building and new laundry machinery, \$15,000; for the F building, West Group, \$3,595.80; for repairs to the sewer line, West Group, \$5,000.

The maintenance appropriation for the year was \$808,030. The maintenance expenditures of the hospital for the year were as follows:—

	Amount expended.	Per Capita.	Percentage of Total.
Personal services . . . . .	\$289,297 99	\$153 06	37.629
Travel, transportation and office expenses . . . . .	9,298 95	4 92	1.209
Food . . . . .	169,080 57	89 46	21.994
Religious instruction . . . . .	2,079 98	1 10	.270
Clothing and materials . . . . .	25,493 72	13 49	3.316
Furnishings and household supplies . . . . .	50,343 68	26 65	6.552
Medical and general care . . . . .	19,212 58	10 16	2.498
Heat, light and power . . . . .	139,629 39	73 87	18.160
Farm and stable . . . . .	8,177 16	4 33	1.064
Grounds . . . . .	10,361 50	5 48	1.347
Repairs, ordinary . . . . .	21,851 40	11 56	2.842
Repairs and renewals . . . . .	23,966 52	12 68	3.117
Totals . . . . .	\$768,793 44	\$406 76	100.000

Based on the average daily population of the hospital (1,890.01), the per capita cost of maintenance for the year was \$406.76, or \$7.82 per week. The per capita cost for the year 1920 was \$398.63, or \$7.66 per week. Owing to the fact that the cost of commodities in general has not yet returned to normal, or at least to a pre-war basis, the cost of maintenance is still much higher than formerly. The fact that the hospital has a larger infirmary population and a greater number of bed



patients than other institutions of this type is, of course, a factor of material importance. Our lack of agricultural facilities and the absence of a dairy mean a considerable increase in the cost of maintenance. The type of buildings erected heretofore has been a material factor in the cost of personal services as well as in the outlay necessary for repairs. The old buildings erected many years ago were made up of small units, few dormitories accommodating more than 6 patients, and consisting largely of single rooms. This necessitates a large amount of supervision and a number of ward employees that could be avoided just as well as not in certain buildings where custodial care only is required, and more patients can be housed in larger dormitories. No buildings designed exclusively for purely custodial patients in considerable numbers have ever been erected at this institution. The cost of maintaining the old buildings erected many years since by the city of Boston has, of course, been very high.

#### GENERAL OPERATIONS FOR THE YEAR.

The kitchen and dining room building for the East Group, a description of which may be found in the annual report of last year, was opened on March 18, 1921. The occupation of this building has done away with the necessity of using the East Group chapel for dining-room purposes. For many years the chapel has been used as a dining room and it has been necessary to remove the chairs and tables for religious services and entertainments, — a highly undesirable arrangement.

The new nurses' home in the East Group has been completed and was occupied on Sept. 1, 1921. This has enabled us to remove 31 nurses and attendants from the first floor of the F building in the East Group and 22 who were housed in the attic of the same building. It has also obviated the necessity of assigning ward employees to quarters in the old administration building in the East Group. This has resulted in a material improvement and one which is highly appreciated by the nurses and attendants of the hospital. The new nurses' home is commodious and comfortable and will compare very favorably with buildings erected for this purpose by general hospitals. The home furnishes accommodations for 90 employees.

The kitchen and dining room building in the West Group

has been completed and was opened on Oct. 20, 1921. This has enabled us to do away with the old basement kitchen in the administration building in the West Group and has furnished us with adequate facilities for cooking in a much more satisfactory way for the 1,500 patients in the West Group. The building is one story in height and consists of a kitchen with ample scullery facilities and an automatic refrigerating machine in the basement, together with three dining rooms for patients, one for nurses and attendants and another for outside employees. The patients' dining rooms each have accommodations for 224 persons, thus making it possible for us to properly classify our patients, separating the workers and the parole patients from the noisy and disturbed and giving us better accommodations for quiet and convalescent patients. The kitchen is furnished with the latest and most approved type of equipment. Terrazzo flooring is used throughout and there are ample serving room facilities which have resulted in a considerable improvement in our dining room service.

Work has been commenced on a two-story addition to the laundry building in the East Group. The lower floor will be used as a receiving room and the upper floor as a distributing room. These will both be 28 by 35 feet in size. This new construction will render much more space available in the existing washing and ironing rooms and will also make it possible for us to purchase some much needed laundry machinery.

The occupancy of the new kitchen and dining-room building in the East Group necessitated a large amount of grading in that vicinity, some of which has been completed and much of which will, however, be deferred until another year. A new cement walk leading from the rear of the A building in the East Group to the B building and to the new dining room was finished early in the year. The B building has also been connected with the new kitchen and dining-room building by a corridor.

Extensive repairs to the 6-inch steam line leading from pit 18 in the West Group to the garage were completed during the month of December, 1920.

The first, second and third floors of the B building in the West Group, formerly occupied by female patients, were re-

painted after the occupancy of the new F building. The interior of the G building in the West Group was repainted during the year.

The renovation of the single rooms in the B building in the East Group has been completed, the old wooden wainscoting having been removed and new cement floors installed.

New and modern folding chairs have been purchased for the chapel, which has been repainted throughout and redecorated during the year.

The basement of the chapel building no longer being used for kitchen purposes, a very satisfactory milk room has been established in that place, all of the milk being issued from that central locality, and all the milk cans being sterilized there.

The administration building and the barns in the East Group were repainted during the year.

Extensive roofing repairs were completed during the year, including the administration building and the assistant superintendent's cottage in the West Group, and the administration building, buildings A, B, C, D and E and the barn in the East Group.

Extensive repairs to the steam lines in the West Group were also completed during the summer. The line running from the bridge over the brook to the rear of the G building was re-insulated throughout.

The annual field day exercises of the hospital were held on the baseball grounds in the West Group on July 4 and were very much enjoyed by the patients, many of whom participated in the various field events.

The elimination of the old pond in the East Group, which proved to be a very extensive undertaking, was completed during the month of July, 1921. The water was removed by means of an 8-inch Akron pipe drain extending from the pond to the rear of the garage in the East Group. This will be continued to the Canterbury Branch of Stony Brook later. The pond was filled in with material furnished by the contractor removing the ashes from the Dorchester district of the city of Boston. This work was supplemented by a large amount of soil brought in by contractors engaged in excavating various sites on Blue Hill Avenue for building purposes.

A large amount of grading was necessary around the new nurses' home in the East Group. This has been partially completed, but will have to be finished next year. The surface drain around the nurses' home was connected with the new drain installed for the purpose of emptying the pond.

The land between the new kitchen and dining-room building in the East Group and Stony Brook has also been covered very extensively with ashes during the summer months. It is hoped that the grade of this tract of land will be raised during the coming year to the level of Morton Street.

The mortuary building in the East Group was repaired extensively during the month of August, the brickwork having been in bad condition for several years. A new roof for this building will be necessary during the coming year.

Twenty-two hundred feet of 6-foot angle iron fencing was purchased during the latter part of the year, but arrived too late for installation and will be erected next spring. This will provide us with fencing on Harvard Street from Morton Street to the entrance in front of the C building in the East Group and will enable us to fence Austin Street from Harvard Street to Canterbury Street.

Repairs to the sewer line in the West Group, an appropriation for which was rendered available by the Legislature at its last session, were completed during the month of August, 1921.

The foundation of the B building in the East Group was extensively reinforced during September, this change being made necessary by the grading in the neighborhood of the new kitchen and dining-room building.

The hospital was visited by the public institutions committee of the Legislature on January 14. They were accompanied by Dr. Kline, Commissioner of the Department of Mental Diseases, and visited both the East and the West groups throughout.

The hospital was also visited by the Lieutenant-Governor and the Executive Council, the commander and headquarters staff of the American Legion, the Commission on Mental Diseases and the Commission on State Administration and Expenditures.

Under the provisions of chapter 224 of the Special Acts of 1919 the street laying-out department of the city of Boston has taken during the year 7,761 square feet of the hospital property

for the purpose of widening Harvard Street opposite the new schoolhouse, and extending from Morton Street to Fabyan Street.

Repairs were made to the sewer line connecting the F, G and H buildings and the farmhouse in the West Group with the metropolitan sewer, a 12-inch iron pipe having been used to replace the old Akron pipe line.

Buildings A and C in the East Group were repainted during the year, as well as practically all of the window guards in the institution.

Attention should be called again to the desirability of acquiring the 150,000 square feet of land belonging to the Forest Hills Cemetery and located south of Canterbury Street, adjoining the West Group. This is the only part of the site bounded by Canterbury Street on the north, Harvard Street on the south, Morton Street on the east and Walk Hill Street on the west that has not as yet been acquired by the State. The buildings on this land could be used to very good advantage and would facilitate the removal of the barns and other objectionable structures adjoining the administration building in the East Group. The desirability of acquiring this land was referred to by the joint special legislative committee on public institutions in their report of March, 1920, as shown in Senate Document No. 450.

Further reference should be made at this time to the Canterbury Branch of Stony Brook. Although the channel of this brook was cleaned out by the city two years ago, it is already overgrown with weeds and is as badly obstructed as ever. The brook not infrequently overflows its banks, and from 30 to 40 acres of hospital land have been covered with water at times. It occasionally gets into the steam conduits, and has flooded the pump room of the power house to a depth of a foot and a half. Such an overflow may at any time render it impossible to provide heat for the West Group, which now has a capacity of over 1,500 beds. This condition of affairs should be remedied as soon as possible. The conduit built by the city extends to the point where the brook enters the hospital property on Harvard Street. The brook runs through the grounds for a distance of approximately 4,500 feet. The conduit should be

extended for at least 2,200 feet to the point where the hospital road crosses the brook in the West Group. This would reclaim 30 or 40 acres of valuable land, worth approximately \$260,000. The work of enclosing this brook as originally undertaken by the city is incomplete, and the present condition was intended only as a temporary arrangement. The joint special committee of the Legislature reporting on public institutions in 1920 referred to this as a serious menace requiring immediate attention.

#### NEEDS OF THE HOSPITAL FOR THE COMING YEAR.

As the construction deemed necessary for the coming year is to be determined by the Department of Mental Diseases, the following items were submitted some time since for consideration: —

1. Administration building and staff quarters . . . . .	\$170,000
2. Superintendent's house . . . . .	20,000
3. New roof for buildings C and D, West Group, East Group chapel and adjoining corridors . . . . .	15,000
4. Bakery . . . . .	40,000
5. Verandas, C building, East Group . . . . .	8,000
6. Verandas, G building, East Group . . . . .	5,000
7. Cottage for twenty farm employees . . . . .	30,000
8. Addition to refrigerating room and additional refrigerating machinery . . . . .	25,000
9. Concrete platform for coal storage . . . . .	5,000
10. New laundry machinery . . . . .	7,500
11. Addition to garage . . . . .	3,500
12. New watch clock system, West Group . . . . .	3,000
13. Fencing . . . . .	5,000
14. New greenhouse . . . . .	5,500
15. Paint shop . . . . .	5,400
16. Automatic CO <sub>2</sub> and draft recorders . . . . .	2,400
17. Stokers for eight boilers . . . . .	32,500
18. Extension to sewer, water and steam lines . . . . .	12,000
19. Concrete pavement in front of power house . . . . .	10,000
Total . . . . .	<hr/> \$404,800

1. *Administration Building and Staff Quarters.* — The offices of the institution are now located in an old building purchased by the city of Boston about fifty years ago for use as an alms-

house. This is a two and one-half story building constructed of wood throughout, contains numerous exposed electric wires, and has several wooden stairways running from the basement to the attic. This building is located within fifty yards of a large wooden barn containing hay, and is surrounded by other non-fireproof structures, the nearest being the laundry, the chapel and a non-fireproof building occupied by patients. Its presence in this location is a serious menace, and in case of fire would threaten the loss of the entire East Group. The building now houses over 50 employees, 30 of whom are living in the attic. The offices of the hospital should be in a central location. It is very inconvenient for relatives and friends of the patients to come from Walk Hill Street to the present administration building. The hospital has now reached a stage of development where an administration building is urgently needed. We do not propose to demolish the old wooden building now used for office purposes, but suggest removing it to other locations where it can be remodeled and used for housing employees, etc. In erecting an administration building we propose to provide additional accommodations for the staff on the second floor. Attention should be called to the fact that no new construction has ever been provided at the institution as yet for the exclusive use of the medical officers of the hospital.

2. *Superintendent's House.* — No superintendent's residence has ever been built at the hospital. The only house used for that purpose was the remodeled Pierce farmhouse, acquired by the city in 1893. This building is now being used for other purposes. The arrangement of the building is not such as to render it suitable for a superintendent's residence. It has been necessary for the Board of Trustees to rent a house for the superintendent. The lease on this house will expire by the time a building can be erected on the hospital premises. The annual outlay involved in this rental, including heat, light, etc., represents the interest on a considerable investment. The cost may be increased at the expiration of the present lease in November, 1922.

3. *New Roof for Buildings C and D, West Group, East Group Chapel and Adjoining Corridors.* — Buildings C and D in the West Group were completed and occupied in 1895. The chapel

building in the East Group was finished in 1894. The roofs of these structures, which are as old as the buildings themselves, can no longer be kept in suitable repair and should be replaced at as early a date as possible.

4. *Bakery.* — The present bakery occupies a part of the upper floor of the storehouse in the East Group. This building was completed in 1913. There are only two ovens in use and no room for expansion. The population has increased enormously since that time. It is exceedingly difficult to supply the needs of the institution at the present time with the facilities of the bakery, which the institution has long since outgrown. The new building should be erected at the earliest possible moment.

5. *Verandas, C Building, East Group.* — The C building in the East Group, which now accommodates 170 patients, has no verandas. We feel that these are very necessary, as this building is the largest one in the East Group for the custodial type of patients and there are many days when it is impossible for them to go out of doors for exercise. There is at the present time no building in the East Group which has any enclosed verandas.

6. *Verandas, G Building, East Group.* — Owing to some oversight, no provision was made for verandas when this building was erected. It is the reception building for female patients for the entire institution and there is no place in the hospital where verandas are more badly needed than in buildings of the reception type.

7. *Cottage for Twenty Farm Employees.* — Attention has already been called to the necessity of further provision for the housing of farm employees. The building now used for this purpose in the West Group is one which has been in constant use since 1904. It has been remodeled throughout on several occasions and cannot be repaired further to good advantage. The building inspectors of the District Police have refused to certify it for occupancy, and it should be replaced at the earliest possible moment.

8. *Addition to Refrigerating Room and Additional Refrigerating Machinery.* — The present refrigerating machinery has been in use for many years. The capacity of the hospital has been



doubled since this plant was installed. An additional load has been carried since the new kitchen building was opened. It has been very difficult to make ice enough for the hospital for some time owing to the limited capacity of this plant. This is an urgent necessity.

9. *Concrete Platform for Coal Storage.* — The recommendations of the consulting engineers representing the Department of Mental Diseases show that we should be able to take care of at least 6,000 tons of coal at one time. At present this is done by spreading the coal over a large space near the power house. This land is low and is frequently overflowed by water from the Canterbury Branch of Stony Brook. A considerable loss would be prevented by storing this coal on a cement platform (20,000 square feet).

10. *New Laundry Machinery.* — Some of the laundry machinery which we are now using has reached the limit of its usefulness and should be replaced as soon as possible. We are badly in need of new dryers, mangles and other machinery. Some of the equipment is out of date and has become very expensive to keep in repair.

11. *Addition to Garage.* — No garage has ever been built for the hospital. We are using the old West Group boiler house, remodeled for this purpose, at the present time. It is, however, not large enough, and additional space is badly needed.

12. *New Watch Clock System, West Group.* — We now have four watch clock recorders in the West Group. None of the present recorders has sufficient capacity to take care of the new building which is now being completed. An overhead cable has been used in some places. The wiring in two of the buildings is very old and was too light for the work originally. It should be replaced. The proper thing to do under the circumstances is to install one central recorder of sufficient capacity to take care of the entire West Group, locating all wires underground. This will cost about \$3,000.

13. *Fencing.* — The hospital has on its present site 233 acres of land unprotected by suitable fencing at any place. As a result of this, the grounds are overrun by small boys from the neighborhood. We cannot police the premises, and many of the vegetables which we are attempting to raise in our gardens are

stolen. We have suffered large losses in this way. We are also unable to prevent strangers from approaching our buildings and annoying the patients, as they do very frequently. A school-house has been erected at a point immediately across the street from the building containing our most destructive, noisy and violent women. We cannot keep the school children out of our property. We wish to erect an angle iron fence 6 feet high. We are of course aware of the fact that the entire hospital property cannot all be fenced in at once owing to the expense involved, and would suggest appropriating \$5,000 or \$10,000 each year for this purpose.

14. *New Greenhouse.* — The old greenhouse in the rear of the present administration building in the East Group is in a very dilapidated condition and is liable to fall down. A new one should be built as soon as possible in another location.

15. *Paint Shop.* — The present paint shop is located in the basement of the laundry building, the third floor of which is used as an industrial room. This is a violation of the laws of the State. A separate building should be erected for the paint shop as soon as possible. The estimated cost of such a structure is \$5,400.

16. *Automatic CO<sub>2</sub> and Draft Recorders.* — These were recommended by the Tenney Engineering Company three years ago. Our budget did not, however, cover the cost of installing this apparatus, and we are accordingly asking for \$2,400 for that purpose this year.

17. *Stokers for Eight Boilers.* — At the present time we have in the boiler house two boilers with a Massachusetts rating of 108 horsepower, and six with a rating of 126 horsepower. The radiating surface now heated in the institution is over 150,000 square feet. It is only a question of time before additional boilers will have to be provided. The efficiency of the present plant can be enormously increased by the use of stokers, which would do away with the necessity of several additional firemen.

18. *Extension to Sewer, Water and Steam Lines.* — When a new administration building is erected an extension to the sewer, water and steam lines of the institution will be necessary. Provision should be made for this at as early a moment as possible. When completed, this extension will also provide for several other buildings.

19. *Concrete Pavement in Front of Power House.* — There is a granite block pavement in front of the laundry at the present time. This is not laid in cement and will have to be taken up soon. When relaid, this should be extended to the front of the power house and carried as far as the storehouse. The heavy trucks now delivering coal to the power house render the installation of some kind of a serviceable pavement necessary. The cheapest pavement available will be concrete, at an estimated cost of \$10,000.

Respectfully submitted,

JAMES V. MAY,  
*Superintendent.*

Nov. 30, 1921.

## VALUATION.

Nov. 30, 1921.

## REAL ESTATE.

Land (233 acres)	\$576,680 00
Buildings	2,651,376 81
	<hr/>
	\$3,228,056 81

## PERSONAL PROPERTY.

Travel	\$4,435 00
Food	14,856 61
Clothing and materials	20,789 81
Furnishings and household supplies	167,362 48
Medical and general care	7,695 47
Heat, light and power	7,666 40
Farm	12,096 40
Stable, garage and grounds	6,103 03
Repairs	7,766 44
	<hr/>
	\$248,771 64

## SUMMARY.

Real estate	\$3,228,056 81
Personal property	248,771 64
	<hr/>
	\$3,476,828 45

## TREASURER'S REPORT.

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*To the Commissioner of the Department of Mental Diseases.*

I respectfully submit the following report of the finances of this institution for the fiscal year ending Nov. 30, 1921:—

### CASH ACCOUNT.

Balance Dec. 1, 1920 . . . . .	\$12,172 73
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### *Receipts.*

#### *Income.*

#### Board of inmates:

Private . . . . .	\$27,200 73
Reimbursements, insane . . . . .	54,594 24
	\$81,794 97

#### Personal services:

Reimbursement from Board of Retirement . . . . .	168 17
--	--------

#### Sales:

Travel, transportation and office expenses . . . . .	\$103 62
Food . . . . .	633 38
Clothing and materials . . . . .	44 01
Furnishings and household supplies . . . . .	90 22
Medical and general care . . . . .	9 00
Heat, light and power . . . . .	61 49

#### Farm:

Pigs and hogs . . . . .	\$240 30
Hay . . . . .	375 00
Sundries . . . . .	1 08

616 38

Repairs, ordinary . . . . .	1 25
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1,559 35

#### Miscellaneous:

Interest on bank balances . . . . .	648 73
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84,171 22

#### Other receipts:

Deceased patients funds . . . . .	850 66
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### *Receipts from Treasury of Commonwealth.*

#### Maintenance appropriations:

Balance of 1920 . . . . .	\$14,444 33
Advance money (amount on hand November 30) . . . . .	45,000 00
Approved schedules of 1921 . . . . .	701,912 03

761,356 36

Special appropriations . . . . .	343,972 30
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Total . . . . .	\$1,202,523 27
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*Payments.*

## To treasury of Commonwealth:

Institution income . . . . .	\$84,171 22	
Refunds, account maintenance . . . . .	181 94	
To Department of Mental Diseases . . . . .	850 66	
	<hr/>	\$85,203 82

## Maintenance appropriations:

Balance of schedules of previous year . . . . .	\$26,617 06	
Eleven months' schedules, 1921 . . . . .	\$701,912 03	
Less returned . . . . .	181 94	
	<hr/>	701,730 09
November advances . . . . .	41,993 26	
	<hr/>	770,340 41

## Special appropriations:

Approved schedules, eleven months . . . . .	343,972 30	
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## Balance, Nov. 30, 1921:

In bank . . . . .	\$1,835 37	
In office . . . . .	1,171 37	
	<hr/>	3,006 74

Total . . . . .	\$1,202,523 27	
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## MAINTENANCE.

Balance from previous year, brought forward . . . . .	\$4 29	
Appropriation, current year . . . . .	808,030 00	

Total . . . . .	\$808,034 29	
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Expenses (as analyzed below) . . . . .	768,793 44	
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Balance reverting to treasury of Commonwealth . . . . .	\$39,240 85	
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*Analysis of Expenses.*

## Personal services:

James V. May, superintendent . . . . .	\$5,100 00	
Medical . . . . .	19,887 33	
Administration . . . . .	23,849 91	
Kitchen and dining-room service . . . . .	16,697 73	
Domestic . . . . .	24,006 23	
Ward service (male) . . . . .	63,012 52	
Ward service (female) . . . . .	76,712 66	
Industrial and educational department . . . . .	4,783 73	
Engineering department . . . . .	24,443 08	
Repairs . . . . .	15,074 77	
Farm . . . . .	8,149 76	
Stable, garage and grounds . . . . .	7,580 27	
	<hr/>	\$289,297 99

## Religious instruction:

Catholic . . . . .	\$1,039 98	
Hebrew . . . . .	520 00	
Protestant . . . . .	520 00	
	<hr/>	2,079 98

Amount carried forward . . . . .	\$291,377 97	
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*Amount brought forward* . . . . . \$291,377 97

Travel, transportation and office expenses:

Advertising . . . . .	\$164 94
Postage . . . . .	527 40
Printing and binding . . . . .	1,737 22
Printing annual report . . . . .	611 43
Stationery and office supplies . . . . .	2,653 63
Telephone and telegraph . . . . .	1,865 35
Travel . . . . .	1,670 98
Sundries . . . . .	68 00

9,298 95

Food:

Flour . . . . .	\$27,436 20
Cereals, rice, meal, etc. . . . .	3,238 88
Bread, crackers, etc. . . . .	601 76
Peas and beans (canned and dried) . . . . .	4,202 71
Macaroni and spaghetti . . . . .	706 11
Potatoes . . . . .	9,290 69
Meat . . . . .	37,857 09
Fish (fresh, cured and canned) . . . . .	7,119 43
Butter . . . . .	11,369 96
Butterine, etc. . . . .	6,452 22
Peanut butter . . . . .	45
Cheese . . . . .	1,271 87
Coffee . . . . .	1,353 89
Coffee substitutes . . . . .	500 52
Tea . . . . .	804 17
Cocoa . . . . .	82 98
Whole milk . . . . .	1,944 87
Milk (condensed, evaporated, etc.) . . . . .	24,369 66
Eggs (fresh) . . . . .	8,026 78
Sugar (cane) . . . . .	4,089 57
Sugar (maple, etc.) . . . . .	76 73
Fruit (fresh) . . . . .	3,169 65
Fruit (dried and preserved) . . . . .	6,612 89
Lard and substitutes . . . . .	564 16
Molasses and syrups . . . . .	1,084 56
Vegetables (fresh) . . . . .	3,525 70
Vegetables (canned and dried) . . . . .	1,417 89
Seasonings and condiments . . . . .	1,232 09
Yeast, baking powder, etc. . . . .	677 09

169,080 57

Clothing and materials:

Boots, shoes and rubbers . . . . .	\$2,309 88
Clothing (outer) . . . . .	10,827 71
Clothing (under) . . . . .	4,537 18
Dry goods for clothing . . . . .	2,520 32
Hats and caps . . . . .	285 00
Leather and shoe findings . . . . .	663 08
Machinery for manufacturing . . . . .	10 75
Socks and smallwares . . . . .	4,339 80

25,493 72

*Amount carried forward* . . . . . \$495,251 21

<i>Amount brought forward</i>		\$495,251 21	
<b>Furnishings and household supplies:</b>			
Beds, bedding, etc.	\$17,293 02		
Carpets, rugs, etc.	1,717 71		
Crockery, glassware, cutlery, etc.	5,357 52		
Dry goods and smallwares	416 25		
Electric lamps	663 09		
Furniture, upholstery, etc.	4,928 23		
Kitchen and household wares	9,336 11		
Laundry supplies and materials	4,141 94		
Lavatory supplies and disinfectants	1,927 26		
Machinery for manufacturing	37 50		
Table linen, paper napkins, towels, etc.	4,525 05		
			50,343 68
<b>Medical and general care:</b>			
Books, periodicals, etc.	\$413 56		
Entertainments, games, etc.	1,885 58		
Funeral expenses	184 80		
Gratuities	214 50		
Ice and refrigeration	1,093 71		
Laboratory supplies and apparatus	741 56		
Medicines (supplies and apparatus)	4,599 85		
Medical attendance (extra)	482 46		
Patients boarded out	391 10		
Return of runaways	24 20		
Tobacco, pipes, matches	2,453 98		
Water	5,527 28		
Rent	1,200 00		
			19,212 58 <sup>1</sup>
<b>Heat, light and power:</b>			
Coal (bituminous)	\$86,628 19		
Freight and cartage	45,509 42		
Coal (screenings)	300 00		
Coal (anthracite)	3,995 91		
Freight and cartage	1,549 08		
Electricity	149 92		
Gas	343 92		
Oil	511 85		
Operating supplies for boilers and engines	641 10		
			139,629 39
<b>Farm:</b>			
Blacksmithing and supplies	\$669 59		
Carriages, wagons and repairs	920 40		
Fertilizers	1,695 42		
Grain, etc.	2,080 46		
Harnesses and repairs	185 69		
Spraying materials	183 08		
Stable and barn supplies	81 67		
Tools, implements, machines, etc.	1,237 60		
Trees, vines, seeds, etc.	621 81		
Veterinary services, supplies, etc.	312 69		
Lime	188 75		
			8,177 16
<i>Amount carried forward</i>		\$712,614 02	

<sup>1</sup> Includes refund of \$1,303.04 on coal that came through C. of M. D. and did not go through institution cash.



<i>Amount brought forward</i>		\$712,614 02
Garage, stable and grounds:		
Automobile repairs and supplies	\$7,686 81	
Blacksmithing and supplies	97 55	
Carriages, wagons and repairs	99 95	
Grain	213 30	
Harnesses and repairs	11 85	
Rent	60 00	
Road work and materials	312 15	
Spraying materials	105 50	
Stable supplies	31 73	
Tools, implements, machines, etc.	894 68	
Trees, vines, seeds, etc.	847 98	
		10,361 50
Repairs, ordinary:		
Brick	\$59 10	
Cement, lime, crushed stone, etc.	2,718 39	
Electrical work and supplies	1,552 52	
Hardware, iron, steel, etc.	2,426 60	
Lumber, etc. (including finished products)	2,902 29	
Paint, oil, glass, etc.	5,736 68	
Plumbing and supplies	2,016 17	
Roofing and materials	610 46	
Steam fittings and supplies	2,206 57	
Tools, machines, etc.	131 97	
Boilers, repairs	957 37	
Dynamos, repairs	50 20	
Engines, repairs	483 08	
		21,851 40
Repairs and renewals:		
Seats for chapel	\$1,350 00	
Repairing conduit line	3,977 38	
Roofing	9,607 84	
Sewer	2,112 75	
Steam line covering	1,164 92	
Coat racks	272 00	
Window guards	1,386 00	
Fencing	4,095 63	
		23,966 52
Total expenses for maintenance		\$768,793 44

## RESOURCES AND LIABILITIES.

*Resources.*

Cash on hand	\$3,006 74	
November cash vouchers (paid from advance money), account of maintenance	41,993 26	
		\$45,000 00
Due from treasury of Commonwealth from available appropriation account November, 1921, schedule:		
Maintenance	23,366 39	
Special appropriations	6,121 66	
		\$74,488 05

*Liabilities.*

Outstanding schedules of current year:

Schedule of November bills . . . . .	\$68,366 39
Special appropriations . . . . .	6,121 66
	<hr/>
	\$74,488 05

*PER CAPITA.*

During the year the average number of inmates has been 1,890.01.

Total cost for maintenance, \$768,793.44.

Equal to a weekly per capita cost of \$7.8224.

Receipt from sales, \$1,559.35.

Equal to a weekly per capita of \$0.01586.

All other institution receipts, \$82,611.87.

Equal to a weekly per capita of \$0.8405.

Net weekly per capita cost \$6.9661.

Respectfully submitted,

ADELINE J. LEARY,

*Treasurer.*

Examined and found correct as compared with the records in the office of the Auditor of the Commonwealth.

ALONZO B. COOK,

*Auditor.*

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# STATISTICAL TABLES

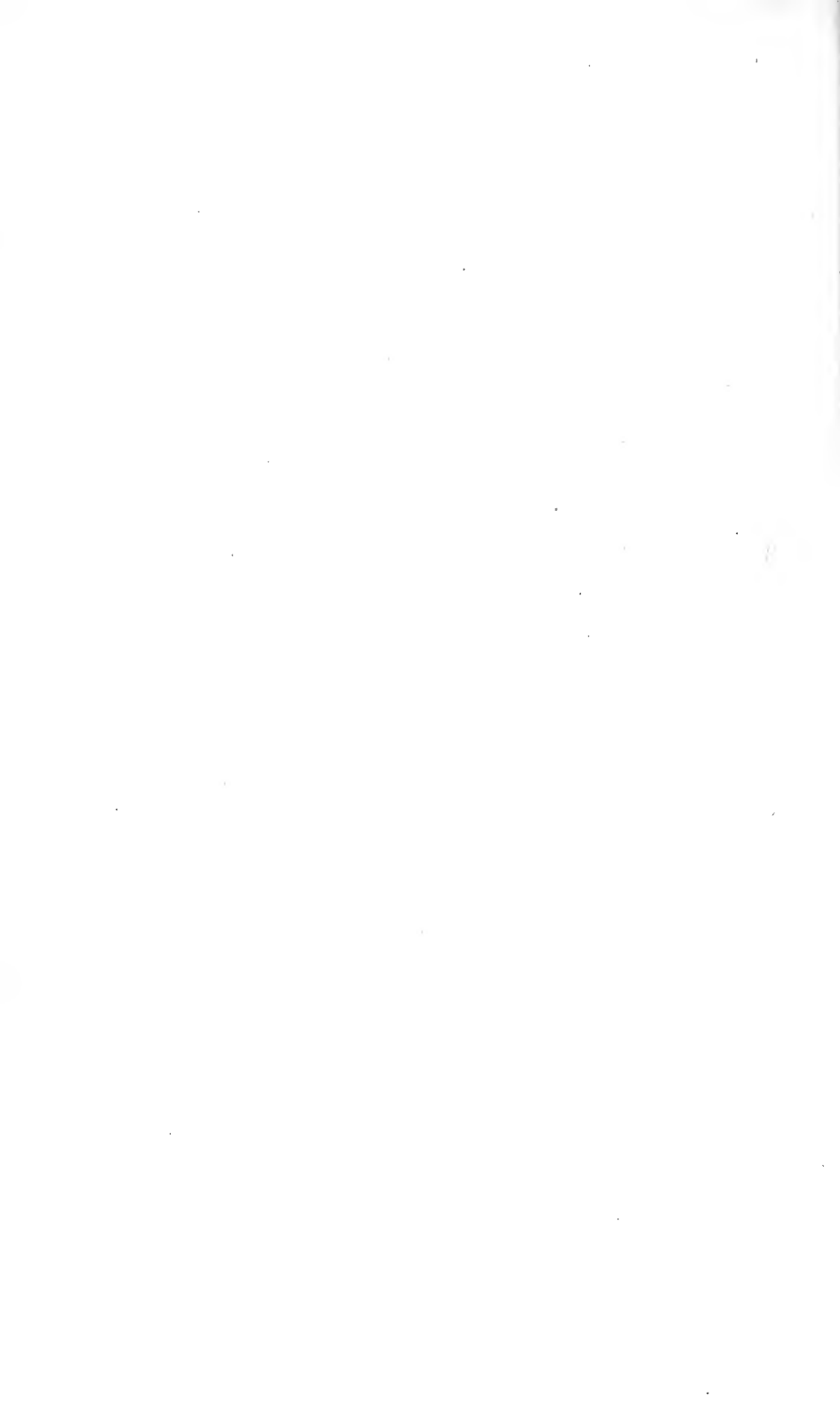
AS ADOPTED BY THE AMERICAN PSYCHIATRIC  
ASSOCIATION

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PREScribed BY MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

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## STATISTICAL TABLES.

TABLE 1. — *General Information.*

1. Date of opening as an institution for the insane: Dec. 11, 1839.
2. Type of institution: State since Dec. 1, 1908.
3. Hospital plant:

Value of hospital property:

Real estate including buildings . . . . .	\$3,228,056 81
Personal property . . . . .	248,771 64

Total . . . . . \$3,476,828 45

Total acreage of hospital property owned, 233.

Total acreage under cultivation during previous year, 145.

	ACTUALLY IN SERVICE AT END OF YEAR.			VACANCIES AT END OF YEAR.		
	Males.	Fe- males.	Totals.	Males.	Fe- males.	Totals.
4. Officers and employees:						
Superintendents . . . . .	1	—	1	—	—	—
Assistant superintendent . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	5	2	7	2	2	4
Pathologist . . . . .	1	—	1	—	—	—
Medical internes . . . . .	—	—	—	—	—	—
Clinical assistants . . . . .	—	—	—	—	—	—
Total physicians . . . . .	8	2	10	2	2	4
Stewards . . . . .	1	—	1	—	—	—
Resident dentists . . . . .	1	—	1	—	—	—
Graduate nurses . . . . .	—	23	23	3	8	11
Other nurses and attendants . . . . .	107	108	215			
Teachers of occupational therapy . . . . .	4	5	9	—	—	—
Social workers . . . . .	3	—	3	—	—	—
All other officers and employees . . . . .	69	71	140	4	3	7
Total officers and employees . . . . .	185	207	392	7	11	18

TABLE 1. — *General Information* — Concluded.

	ACTUALLY IN IN-STITUTION.			ABSENT FROM INSTITUTION BUT STILL ON BOOKS.		
	Males.	Fe- males.	Totals.	Males.	Fe- males.	Totals.
5. Census of patient population at end of year:						
White:						
Insane . . . . .	843	1,030	1,873	104	189	293
Epileptics . . . . .	—	—	—	—	—	—
Mental defectives . . . . .	—	—	—	—	—	—
Alcoholics . . . . .	—	—	—	—	—	—
Drug addicts . . . . .	—	—	—	—	—	—
Neurosyphilitics (without psy- chosis) . . . . .	—	—	—	—	—	—
All other cases . . . . .	—	—	—	—	—	—
Total . . . . .	843	1,030	1,873	104	189	293
Colored:						
Insane . . . . .	17	25	42	3	1	4
Epileptics . . . . .	—	—	—	—	—	—
Mental defectives . . . . .	—	—	—	—	—	—
Alcoholics . . . . .	—	—	—	—	—	—
Drug addicts . . . . .	—	—	—	—	—	—
Neurosyphilitics (without psy- chosis) . . . . .	—	—	—	—	—	—
All other cases . . . . .	—	—	—	—	—	—
Total . . . . .	17	25	42	3	1	4
Grand total . . . . .	860	1,055	1,915	107	190	297
6. Patients employed in industrial classes or in general hospital work on date of report . . . . .				Males.	Females.	Totals.
				555	583	1,138
7. Average daily number of all patients actually in institution during year . . . . .	839.27	1,050.74	1,890.01			
8. Voluntary patients admitted during year . . . . .	13	12	25			
9. Persons given advice or treatment in out-patient clinics during year . . . . .	—	—	—			

TABLE 2. — *Financial Statement*.

See treasurer's report for data requested under this table.

TABLE 3. — *Movement of Population for the Year ending Sept. 30, 1921.*

	INSANE.			TEMPORARY CARE.			TOTAL.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Patients on books at beginning of institution year . . . . .	854	1,162	2,016	—	—	—	854	1,162	2,016
Admissions during year:									
First admissions . . . . .	188	168	356	8	9	17	196	177	373
Readmissions . . . . .	74	63	137	6	4	10	80	67	147
Transferred from psychopathic department . . . . .	29	24	53	—	—	—	29	24	53
Transferred from other institutions for mental diseases . . . . .	24	72	96	—	—	—	24	72	96
Total received during year . . . . .	315	327	642	14	13	27	329	340	669
Total under treatment during year . . . . .	1,169	1,489	2,658	14	13	27	1,183	1,502	2,685
Discharged from books during year:									
As recovered . . . . .	16	24	40	5	3	8	21	27	48
As improved . . . . .	32	51	83	2	—	2	34	51	85
As unimproved . . . . .	17	15	32	2	1	3	19	16	35
As without psychosis . . . . .	2	1	3	3	2	5	5	3	8
Died . . . . .	125	147	272	2	3	5	127	150	277
Transferred to other hospitals . . . . .	3	11	14	—	1	1	3	12	15
Total discharged and died . . . . .	195	249	444	14	10	24	209	259	468
Patients remaining on books at end of institution year . . . . .	974	1,240	2,214	—	3	3	974	1,243	2,217

TABLE 4. — *Nativity of First Admissions and of Parents of First Admissions for the Year ending Sept. 30, 1921.*

NATIVITY.	PATIENTS.			PARENTS OF MALE PATIENTS.			PARENTS OF FEMALE PATIENTS.		
	Males.	Females.	Totals.	Fathers.	Mothers.	Both Parents.	Fathers.	Mothers.	Both Parents.
United States . . . . .	99	86	185	23	23	17	23	19	16
Austria . . . . .	1	1	2	1	—	—	2	2	2
Azores . . . . .	1	—	1	1	1	1	—	—	—
Canada <sup>1</sup> . . . . .	15	14	29	10	13	7	13	14	10
England . . . . .	4	4	8	6	2	2	1	2	1
France . . . . .	—	1	1	—	—	—	2	—	—
Germany . . . . .	3	1	4	6	6	6	—	1	—
Greece . . . . .	2	—	2	1	1	1	—	—	—
Ireland . . . . .	25	41	66	61	62	54	58	57	52
Italy . . . . .	13	7	20	13	13	13	10	9	9
Norway . . . . .	1	1	2	—	—	—	1	1	1
Poland . . . . .	1	1	2	1	1	1	1	1	1
Portugal . . . . .	—	—	—	—	1	1	—	—	—
Russia . . . . .	13	6	19	13	13	13	6	6	6
Scotland . . . . .	3	2	5	2	2	2	3	2	1
Sweden . . . . .	5	—	5	2	2	2	—	—	—
Switzerland . . . . .	—	—	—	—	—	—	1	1	1
Turkey in Europe . . . . .	—	1	1	—	—	—	1	1	1
West Indies <sup>2</sup> . . . . .	1	1	2	—	1	—	1	1	1
Unascertained . . . . .	1	1	2	47	47	44	45	51	45
Total . . . . .	188	168	356	188	188	164	168	168	147

<sup>1</sup> Includes Newfoundland.<sup>2</sup> Except Cuba and Porto Rico.TABLE 5. — *Citizenship of First Admissions for the Year ending Sept. 30, 1921.*

	Males.	Females.	Totals.
Citizens by birth . . . . .	99	86	185
Citizens by naturalization . . . . .	34	11	45
Aliens . . . . .	27	33	60
Citizenship unascertained . . . . .	28	38	66
Total . . . . .	188	168	356



TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1921.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	3	—	3	3	—	3
2. Senile, total . . . . .	21	55	76	21	55	76
(a) Simple deterioration . . . . .	13	28	41	13	28	41
(b) Presbyophrenic type . . . . .	—	2	2	—	2	2
(c) Delirious and confused states . . . . .	—	—	—	—	—	—
(d) Depressed and agitated states in addition to deterioration . . . . .	3	4	7	3	4	7
(e) Paranoid states in addition to deterioration . . . . .	5	21	26	5	21	26
(f) Presenile types . . . . .	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	35	16	51	35	16	51
4. General paralysis . . . . .	32	11	43	32	11	43
5. With cerebral syphilis . . . . .	1	1	2	1	1	2
6. With Huntington's chorea . . . . .	—	1	1	—	1	1
7. With brain tumor . . . . .	—	—	—	—	—	—
8. With other brain or nervous diseases, total . . . . .	—	—	—	—	—	—
Cerebral embolism . . . . .	—	—	—	—	—	—
Paralysis agitans . . . . .	—	—	—	—	—	—
Meningitis, tuberculous or other forms . . . . .	—	—	—	—	—	—
Multiple sclerosis . . . . .	—	—	—	—	—	—
Tabes . . . . .	—	—	—	—	—	—
Acute chorea . . . . .	—	—	—	—	—	—
Other conditions . . . . .	—	—	—	—	—	—
9. Alcoholic, total . . . . .	19	3	22	19	3	22
(a) Pathological intoxication . . . . .	—	—	—	—	—	—
(b) Delirium tremens . . . . .	1	—	1	1	—	1
(c) Acute hallucinosis . . . . .	3	—	3	3	—	3
(d) Acute paranoid type . . . . .	—	2	2	—	2	2
(e) Korsakow's psychosis . . . . .	1	—	1	1	—	1
(f) Chronic hallucinosis . . . . .	1	2	3	1	2	3
(g) Chronic paranoid type . . . . .	2	1	3	2	1	3
(h) Alcoholic deterioration . . . . .	9	—	9	9	—	9
(i) Other types, acute or chronic . . . . .	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins, total . . . . .	—	1	1	—	1	1
(a) Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined . . . . .	—	1	1	—	1	1
(b) Metals, as lead, arsenic, etc. . . . .	—	—	—	—	—	—
(c) Gases . . . . .	—	—	—	—	—	—
(d) Other exogenous toxins . . . . .	—	—	—	—	—	—
11. With pellagra . . . . .	—	1	1	—	1	1
12. With other somatic diseases, total . . . . .	2	—	2	2	—	2
(a) Delirium with infectious diseases . . . . .	—	—	—	—	—	—
(b) Post-infectious psychoses . . . . .	—	—	—	—	—	—
(c) Exhaustion delirium . . . . .	—	—	—	—	—	—
(d) Delirium of unknown origin . . . . .	—	—	—	—	—	—
(e) Diseases of the ductless glands . . . . .	—	—	—	—	—	—
(f) Cardio-renal disease . . . . .	—	—	—	—	—	—
(g) Other diseases or conditions (tuberculosis of lungs) . . . . .	2	—	2	2	—	2
13. Manic-depressive, total . . . . .	17	18	35	17	18	35
(a) Manic type . . . . .	8	10	18	8	10	18
(b) Depressive type . . . . .	9	7	16	9	7	16
(c) Stupor . . . . .	—	—	—	—	—	—
(d) Mixed type . . . . .	—	1	1	—	1	1
(e) Circular type . . . . .	—	—	—	—	—	—
14. Involution melancholia . . . . .	3	8	11	3	8	11

TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1921* — Concluded.

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
15. Dementia præcox, total . . . . .	41	27	68			
(a) Paranoid type . . . . .	20	13	33			
(b) Katatonic type . . . . .	14	8	22			
(c) Hebephrenic type . . . . .	2	6	8			
(d) Simple type . . . . .	5	—	5			
16. Paranoia and paranoid conditions . . . . .	1	16	17			
17. Epileptic, total . . . . .	3	—	3			
(a) Deterioration . . . . .	—	—	—			
(b) Clouded states . . . . .	2	—	2			
(c) Other conditions (post-epileptic enfeeblement)	1	—	1			
18. Psychoneuroses and neuroses, total . . . . .	—	2	2			
(a) Hysterical type . . . . .	—	1	1			
(b) Psychasthenic type . . . . .	—	1	1			
(c) Neurasthenic type . . . . .	—	—	—			
(d) Anxiety neuroses . . . . .	—	—	—			
19. With psychopathic personality . . . . .	2	2	4			
20. With mental deficiency . . . . .	3	5	8			
21. Undiagnosed . . . . .	5	—	5			
22. Without psychosis, total . . . . .	—	1	1			
(a) Epilepsy without psychosis . . . . .	—	—	—			
(b) Alcoholism without psychosis . . . . .	—	—	—			
(c) Drug addiction without psychosis . . . . .	—	—	—			
(d) Psychopathic personality without psychosis . . . . .	—	—	—			
(e) Mental deficiency without psychosis . . . . .	—	1	1			
(f) Others . . . . .	—	—	—			
Total . . . . .	188	168	356			

TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1921.*

RACE.	TOTAL.			PSYCHOSES.						WITH CEREBRAL SYPHILIS.			WITH HUNTINGTON'S CHOREA.		
	Males.	Females.	Totals.	TRAUMATIC.		SENILE.		WITH CEREBRAL ARTERIO-SCLEROSIS.		GENERAL PARALYSIS.		Totals.	Males.	Females.	Totals.
				Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.				
African (black)	5	5	10	—	—	1	—	—	1	2	2	4	—	—	—
Armenian	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
English	39	27	66	1	10	15	14	1	14	5	3	8	—	—	—
German	7	2	9	1	—	2	—	1	2	1	—	1	1	—	—
Greek	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	13	5	18	—	—	1	2	2	4	2	—	2	—	—	—
Irish	78	68	146	—	—	27	—	12	4	6	—	6	—	—	—
Italian <sup>1</sup>	14	9	23	—	—	3	—	1	2	10	2	12	—	—	—
Lithuanian	3	1	4	—	—	—	—	—	—	1	1	2	—	—	—
Magyar	1	2	3	—	—	—	—	—	—	1	—	1	—	—	—
Portuguese	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	6	1	7	1	—	1	—	3	—	—	—	—	—	—	—
Scotch	3	5	8	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	2	2	—	3	—	—	—	—	—	—	—	—	—	—
Mixed	8	16	24	—	3	3	—	2	1	2	1	2	—	—	—
Race unascertained	7	24	31	—	14	16	—	—	6	2	2	4	—	—	—
Total	188	168	356	3	55	76	35	35	16	32	11	43	1	1	2

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.





TABLE 8. — *Age of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1921.*

PSYCHOSES.	TOTAL.			YEARS.																				
	Males.	Females.	Totals.	UNDER 15.			15-19.			20-24.			25-29.			30-34.			35-39.			40-44.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.			
1. Traumatic . . . . .	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2. Senile . . . . .	21	55	76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3. With cerebral arteriosclerosis . . . . .	35	16	51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
4. General paralysis . . . . .	32	11	43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5. With cerebral syphilis . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6. With Huntington's chorea . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
8. With other brain or nervous diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9. Alcoholic . . . . .	19	3	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
11. With pellagra . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12. With other somatic diseases . . . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
13. Manic-depressive . . . . .	17	35	52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14. Involution melancholia . . . . .	3	8	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15. Dementia praecox . . . . .	41	27	68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
16. Paranoia or paranoid conditions . . . . .	1	16	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
17. Epileptic . . . . .	3	3	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
18. Psychoneuroses and neuroses . . . . .	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
19. With psychopathic personality . . . . .	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
20. With mental deficiency . . . . .	3	5	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
21. Undiagnosed . . . . .	5	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
22. Without psychosis . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total . . . . .	188	168	356	—	—	—	5	5	10	17	5	22	12	14	26	18	8	26	15	13	28	17	14	31



TABLE 9. — Degree of Education of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1921.

PSYCHOSES.	TOTAL.		ILLITERATE.		READS AND WRITES.		COMMON SCHOOL.		HIGH SCHOOL.		COLLEGE.		UNACCOMPLISHED.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1. Traumatic . . . . .	3	55	2	14	1	7	2	27	10	—	—	—	5	12
2. Senile . . . . .	24	16	3	2	—	3	6	18	3	—	—	—	4	8
3. With cerebral arteriosclerosis . . . . .	35	51	3	3	—	1	12	19	4	—	—	—	4	9
4. General paralysis . . . . .	32	11	—	—	—	—	1	7	—	—	—	—	6	3
5. With cerebral syphilis . . . . .	1	1	—	—	—	—	—	2	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	19	3	4	5	4	1	7	1	1	—	—	—	2	2
10. Due to drugs and other exogenous toxins . . . . .	1	1	—	—	—	—	—	1	—	—	—	—	1	1
11. With pellagra . . . . .	1	1	—	—	—	—	—	1	—	—	—	—	—	—
12. With other somatic diseases . . . . .	2	2	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive . . . . .	17	35	3	5	—	2	10	21	3	—	—	—	1	1
14. Involution melancholia . . . . .	3	8	—	—	—	—	2	4	6	—	—	—	2	3
15. Dementia praecox . . . . .	41	27	3	3	4	4	23	18	9	—	—	—	1	2
16. Paranoia or paranoid conditions . . . . .	1	16	—	—	1	1	1	3	4	—	—	—	1	1
17. Epileptic . . . . .	3	3	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	2	2	—	—	—	—	1	3	1	—	—	—	—	—
19. With psychopathic personality . . . . .	2	4	—	—	—	—	—	2	4	—	—	—	—	—
20. With mental deficiency . . . . .	3	5	1	2	—	2	2	2	—	—	—	—	—	—
21. Undiagnosed . . . . .	5	5	—	—	—	—	5	5	—	—	—	—	—	—
22. Without psychosis . . . . .	—	1	—	1	—	—	—	—	—	—	—	—	—	—
Total . . . . .	188	356	16	37	33	22	92	170	24	26	4	2	19	38



TABLE 10. — *Environment of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1921.*

PSYCHOSES.	TOTAL.			URBAN.			RURAL.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	3	—	3	3	—	3	—	—	—	—	—	—
2. Senile . . . . .	21	55	76	21	55	76	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	35	16	51	35	16	51	—	—	—	—	—	—
4. General paralysis . . . . .	32	11	43	32	11	43	—	—	—	—	—	—
5. With cerebral syphilis . . . . .	1	1	2	1	1	2	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
7. With brain tumor . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	19	3	22	19	3	22	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
11. With pellagra . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
12. With other somatic diseases . . . . .	2	—	2	2	—	2	—	—	—	—	—	—
13. Manic-depressive . . . . .	17	18	35	17	18	35	—	—	—	—	—	—
14. Involution melancholia . . . . .	3	8	11	3	8	11	—	—	—	—	—	—
15. Dementia praecox . . . . .	41	27	68	41	27	68	—	—	—	—	—	—
16. Paranoia or paranoid conditions . . . . .	1	16	17	1	16	17	—	—	—	—	—	—
17. Epileptic . . . . .	3	—	3	3	—	3	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	2	2	—	2	2	—	—	—	—	—	—
19. With psychopathic personality . . . . .	2	2	4	2	2	4	—	—	—	—	—	—
20. With mental deficiency . . . . .	3	5	8	3	5	8	—	—	—	—	—	—
21. Undiagnosed . . . . .	5	—	5	5	—	5	—	—	—	—	—	—
22. Without psychosis . . . . .	1	1	2	1	1	2	—	—	—	—	—	—
Total . . . . .	188	108	356	188	108	356	—	—	—	—	—	—

TABLE 11. — *Economic Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1921.*

PSYCHOSES.	TOTAL.			DEPENDENT.			MARGINAL.			COMFORTABLE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	3	—	3	—	—	—	3	—	3	—	—	—	—	—	—
2. Senile . . . . .	21	55	76	5	18	23	11	17	28	3	—	3	2	18	20
3. With cerebral arteriosclerosis . . . . .	35	16	51	3	3	6	24	7	31	4	—	4	4	6	10
4. General paralysis . . . . .	32	11	43	1	2	3	25	5	30	1	—	1	5	4	9
5. With cerebral syphilis . . . . .	1	1	2	—	1	1	1	—	1	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	19	3	22	3	1	4	13	1	14	1	—	1	2	—	2
10. Due to drugs and other exogenous toxins . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	2	—	2	—	—	—	2	—	2	—	—	—	—	—	—
13. Manic-depressive . . . . .	17	18	35	1	5	6	12	12	24	3	—	3	1	1	1
14. Involution melancholia . . . . .	3	8	11	—	1	1	3	6	9	—	—	—	—	—	—
15. Dementia præcox . . . . .	41	27	68	6	8	14	33	15	48	1	—	1	1	3	4
16. Paranoia or paranoid conditions . . . . .	1	16	17	—	5	5	1	9	10	—	—	—	—	2	2
17. Epileptic . . . . .	3	—	3	—	—	—	3	—	3	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	2	2	1	1	2	1	1	2	—	—	—	—	1	1
20. With mental deficiency . . . . .	3	5	8	2	3	5	1	1	2	—	—	—	—	—	—
21. Undiagnosed . . . . .	5	—	5	1	—	1	4	—	4	—	—	—	—	—	—
22. Without psychosis . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
Total . . . . .	188	168	356	23	49	72	137	78	215	13	6	19	15	35	50

TABLE 12. — *Use of Alcohol by First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1921.*

PSYCHOSES.	TOTAL.			ABSTINENT.			TEMPERATE.			INTERMEDIATE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	3	—	3	2	—	2	1	—	1	—	—	—	—	—	—
2. Senile . . . . .	21	55	76	7	30	37	5	5	10	5	3	8	4	17	21
3. With cerebral arteriosclerosis . . . . .	35	16	51	9	6	15	9	2	11	10	3	13	7	5	12
4. General paralysis . . . . .	32	11	43	7	4	11	8	2	10	11	—	11	6	5	11
5. With cerebral syphilis . . . . .	1	1	2	—	1	1	1	—	1	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	19	3	22	—	—	—	1	—	1	18	3	21	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	2	—	2	1	—	1	—	—	—	—	—	—	—	—	—
13. Manic-depressive . . . . .	17	18	35	8	10	18	7	4	11	2	2	4	—	3	3
14. Involution melancholia . . . . .	3	8	11	4	4	8	2	1	3	—	—	—	—	—	—
15. Dementia precox . . . . .	41	27	68	16	14	30	9	7	16	5	1	6	11	5	16
16. Paranoia or paranoid conditions . . . . .	1	16	17	—	7	7	—	2	2	1	—	2	—	6	6
17. Epileptic . . . . .	3	—	3	1	—	1	—	—	—	1	—	1	1	—	1
18. Psychoneuroses and neuroses . . . . .	—	2	2	—	1	1	—	—	—	—	—	—	—	1	1
19. With psychopathic personality . . . . .	2	2	4	2	—	2	—	2	2	—	—	—	—	—	—
20. With mental deficiency . . . . .	3	5	8	1	2	3	2	1	3	—	—	—	—	2	2
21. Undiagnosed . . . . .	5	—	5	2	—	2	2	—	2	—	—	—	1	—	1
22. Without psychosis . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	188	168	356	57	80	137	47	27	74	54	14	68	30	47	77

TABLE 13. — *Marital Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1921.*

PSYCHOSES.	TOTAL.		SINGLE.		MARRIED.		WIDOWED.		SEPARATED.		DIVORCED.		UNASCERTAINED.	
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.
1. Traumatic . . . . .	3	3	2	2	16	18	1	21	1	1	1	1	1	1
2. Senile . . . . .	21	55	76	5	2	7	10	27	11	7	7	17	1	1
3. With cerebral arteriosclerosis . . . . .	35	16	51	5	3	8	20	30	7	3	1	4	1	1
4. General paralysis . . . . .	32	11	43	5	1	6	1	1	1	1	1	1	1	1
5. With cerebral syphilis . . . . .	1	1	2	1	1	2	1	1	1	1	1	1	1	1
6. With Huntington's chorea . . . . .	1	1	2	1	1	2	1	1	1	1	1	1	1	1
7. With brain tumor . . . . .	1	1	2	1	1	2	1	1	1	1	1	1	1	1
8. With other brain or nervous diseases . . . . .	1	1	2	1	1	2	1	1	1	1	1	1	1	1
9. Alcoholic . . . . .	19	3	22	9	1	10	9	2	2	1	1	1	1	1
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	1	1	2	1	1	1	1	1	1	1	1
11. With pellagra . . . . .	1	1	2	1	1	2	1	1	1	1	1	1	1	1
12. With other somatic diseases . . . . .	2	18	20	11	6	17	5	7	12	1	4	5	1	1
13. Manic-depressive . . . . .	3	8	11	36	17	53	3	2	5	3	2	5	1	1
14. Involution melancholia . . . . .	41	27	68	1	13	14	5	8	13	3	3	6	1	1
15. Dementia praecox . . . . .	1	16	17	1	1	2	2	1	3	1	1	2	1	1
16. Paranoia or paranoid conditions . . . . .	3	3	6	1	1	2	2	1	3	1	1	2	1	1
17. Epileptic . . . . .	2	2	4	3	2	5	1	1	2	1	1	2	1	1
18. Psychoneuroses and neuroses . . . . .	2	2	4	3	4	7	1	1	2	1	1	2	1	1
19. With psychopathic personality . . . . .	3	5	8	4	4	8	1	1	2	1	1	2	1	1
20. With mental deficiency . . . . .	5	5	10	4	4	8	1	1	2	1	1	2	1	1
21. Undiagnosed . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1
22. Without psychosis . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1
Total . . . . .	188	108	296	83	72	155	80	51	131	24	44	68	1	1

TABLE 14. — *Psychoses of Readmissions for the Year ending Sept. 30, 1921.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	-	-	-	-	-	-
2. Senile, total . . . . .	-	-	-	1	2	3
(a) Simple deterioration . . . . .	-	1	1	-	-	-
(b) Presbyophrenic type . . . . .	-	-	-	-	-	-
(c) Delirious and confused states . . . . .	-	-	-	-	-	-
(d) Depressed and agitated states in addition to deterioration . . . . .	-	-	-	-	-	-
(e) Paranoid states in addition to deterioration . . . . .	1	1	2	-	-	-
(f) Presenile types . . . . .	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	3	2	5
4. General paralysis . . . . .	-	-	-	6	4	10
5. With cerebral syphilis . . . . .	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-
8. With other brain or nervous diseases, total . . . . .	-	-	-	-	-	-
Cerebral embolism . . . . .	-	-	-	-	-	-
Paralysis agitans . . . . .	-	-	-	-	-	-
Meningitis, tuberculous or other forms . . . . .	-	-	-	-	-	-
Multiple sclerosis . . . . .	-	-	-	-	-	-
Tabes . . . . .	-	-	-	-	-	-
Acute chorea . . . . .	-	-	-	-	-	-
Other conditions . . . . .	-	-	-	-	-	-
9. Alcoholic, total . . . . .	-	-	-	5	2	7
(a) Pathological intoxication . . . . .	-	-	-	-	-	-
(b) Delirium tremens . . . . .	-	-	-	-	-	-
(c) Acute hallucinosis . . . . .	3	-	3	-	-	-
(d) Acute paranoid type . . . . .	-	1	1	-	-	-
(e) Korsakow's psychosis . . . . .	-	-	-	-	-	-
(f) Chronic hallucinosis . . . . .	1	-	1	-	-	-
(g) Chronic paranoid type . . . . .	-	1	1	-	-	-
(h) Alcoholic deterioration . . . . .	1	-	1	-	-	-
(i) Other types, acute or chronic . . . . .	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins, total . . . . .	-	-	-	-	1	1
(a) Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined . . . . .	-	1	1	-	-	-
(b) Metals, as lead, arsenic, etc. . . . .	-	-	-	-	-	-
(c) Gases . . . . .	-	-	-	-	-	-
(d) Other exogenous toxins . . . . .	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-
12. With other somatic diseases, total . . . . .	-	-	-	-	1	1
(a) Delirium with infectious diseases . . . . .	-	-	-	-	-	-
(b) Post-infectious psychoses . . . . .	-	-	-	-	-	-
(c) Exhaustion delirium . . . . .	-	-	-	-	-	-
(d) Delirium of unknown origin . . . . .	-	-	-	-	-	-
(e) Diseases of the ductless glands . . . . .	-	-	-	-	-	-
(f) Cardio-renal disease . . . . .	-	-	-	-	-	-
(g) Other diseases or conditions (encephalitis lethargica) . . . . .	-	1	1	-	-	-
13. Manic-depressive, total . . . . .	-	-	-	28	26	54
(a) Manic type . . . . .	14	10	24	-	-	-
(b) Depressive type . . . . .	12	16	28	-	-	-
(c) Stupor . . . . .	-	-	-	-	-	-
(d) Mixed type . . . . .	2	-	2	-	-	-
(e) Circular type . . . . .	-	-	-	-	-	-
14. Involution melancholia . . . . .	-	-	-	-	1	1

TABLE 14. — *Psychoses of Readmissions for the Year ending Sept. 30, 1921 — Concluded.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
15. Dementia præcox, total . . . . .	.	.	.	18	13	31
(a) Paranoid type . . . . .	10	9	19			
(b) Katatonic type . . . . .	3	—	3			
(c) Hebephrenic type . . . . .	2	3	5			
(d) Simple type . . . . .	3	1	4			
16. Paranoia and paranoid conditions . . . . .	.	.	.	—	7	7
17. Epileptic, total . . . . .	.	.	.	—	—	—
(a) Deterioration . . . . .	—	—	—			
(b) Clouded states . . . . .	—	—	—			
(c) Other conditions . . . . .	—	—	—			
18. Psychoneuroses and neuroses, total . . . . .	.	.	.	—	—	—
(a) Hysterical type . . . . .	—	—	—			
(b) Psychasthenic type . . . . .	—	—	—			
(c) Neurasthenic type . . . . .	—	—	—			
(d) Anxiety neuroses . . . . .	—	—	—			
19. With psychopathic personality . . . . .	.	.	.	3	1	4
20. With mental deficiency . . . . .	.	.	.	5	1	6
21. Undiagnosed . . . . .	.	.	.	2	—	2
22. Without psychosis, total . . . . .	.	.	.	3	2	5
(a) Epilepsy without psychosis . . . . .	—	—	—			
(b) Alcoholism without psychosis . . . . .	—	—	—			
(c) Drug addiction without psychosis . . . . .	—	—	—			
(d) Psychopathic personality without psychosis . . . . .	1	—	1			
(e) Mental deficiency without psychosis . . . . .	—	2	2			
(f) Others (neurasthenia, 1; question of insanity, 1)	2	—	2			
Total . . . . .	.	.	.	74	63	137

TABLE 15. — Discharges of Patients classified with Reference to Principal Psychoses and Condition on Discharge for the Year ending Sept. 30, 1921.

PSYCHOSES.	TOTAL.			RECOVERED.			IMPROVED.			UNIMPROVED.			WITHOUT PSYCHOSIS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	2	1	2	—	—	—	1	2	1	1	4	3	—	—	—
2. Senile . . . . .	4	5	9	—	—	—	—	1	1	2	1	1	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	2	3	—	—	—	—	1	1	1	1	1	—	—	—
4. General paralysis . . . . .	5	2	7	—	—	—	—	1	2	2	4	1	—	—	—
5. With cerebral syphilis . . . . .	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	11	6	17	3	1	4	8	5	13	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	2	4	6	—	—	—	1	1	2	1	1	2	—	—	—
13. Manic-depressive . . . . .	18	36	54	12	20	32	5	16	21	1	1	2	—	—	—
14. Involution melancholia . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia præcox . . . . .	18	15	33	—	—	—	13	10	23	5	5	10	—	—	—
16. Paranoia or paranoid conditions . . . . .	1	7	8	—	—	—	1	4	5	—	—	3	—	—	—
17. Epileptic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	3	3	—	—	—	—	1	1	—	—	2	—	—	—
19. With psychopathic personality . . . . .	1	3	4	—	—	—	1	3	4	—	—	—	—	—	—
20. With mental deficiency . . . . .	2	5	7	1	—	1	1	5	6	—	—	—	—	—	—
21. Undiagnosed . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	2	1	3	—	—	—	—	—	—	—	—	—	2	1	3
Total . . . . .	67	91	158	16	24	40	32	51	83	17	15	32	2	1	3

TABLE 16. — *Causes of Death of Patients classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1921.*

CAUSES OF DEATH.	TOTAL.			SENILE.				WITH CEREBRAL ARTERIO-SCLEROSIS.			GENERAL PARALYSIS.			ALCOHOLIC.		MANIC-DEPRESSIVE.	
	Males.	Females.	Totals.	Males.	Females.	Totals.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Totals.
GENERAL DISEASES:																	
Septicæmia . . . . .	1	1	2	1	1	2	1	1	1	2	1	1	2	1	1	2	1
Tuberculosis of lungs . . . . .	14	20	34	1	1	2	1	1	1	2	1	1	2	1	1	2	1
Cancer (carcinoma of uterus) . . . . .	1	1	2	1	1	2	1	1	1	2	1	1	2	1	1	2	1
NERVOUS SYSTEM:																	
Apoplexy (cerebral hemorrhage) . . . . .	5	9	14	1	3	4	8	4	4	8	11	8	19	1	1	2	1
General paralysis of insane . . . . .	11	8	19	1	1	2	1	1	1	2	1	1	2	1	1	2	1
Cerebrospinal syphilis . . . . .	1	1	2	1	1	2	1	1	1	2	1	1	2	1	1	2	1
Exhaustion from other mental diseases . . . . .	1	1	2	1	1	2	1	1	1	2	1	1	2	1	1	2	1
Brain tumor . . . . .	1	1	2	1	1	2	1	1	1	2	1	1	2	1	1	2	1
Epilepsy . . . . .	1	1	2	1	1	2	1	1	1	2	1	1	2	1	1	2	1
Central neuritis . . . . .	1	1	2	1	1	2	1	1	1	2	1	1	2	1	1	2	1
Acute otitis media . . . . .	1	1	2	1	1	2	1	1	1	2	1	1	2	1	1	2	1
CIRCULATORY SYSTEM:																	
Acute myocarditis . . . . .	1	1	2	1	1	2	1	1	1	2	1	1	2	1	1	2	1
Chronic myocarditis . . . . .	6	8	14	1	3	4	5	3	3	6	2	1	3	1	1	2	1
Chronic endocarditis . . . . .	3	13	16	1	8	9	3	2	2	4	1	1	2	1	1	2	1
Arteriosclerosis . . . . .	7	13	20	2	8	10	5	5	5	10	1	1	2	1	1	2	1
Other diseases of circulatory system . . . . .	2	6	8	1	1	2	3	1	2	3	1	1	2	1	1	2	1
RESPIRATORY SYSTEM:																	
Bronchitis . . . . .	1	1	2	1	1	2	1	1	1	2	1	1	2	1	1	2	1
Bronchopneumonia . . . . .	60	35	95	7	16	23	15	12	12	27	27	2	29	2	1	3	1
Lobar pneumonia . . . . .	3	7	10	1	5	6	5	1	1	2	2	2	4	1	1	2	1
Other diseases of the respiratory system . . . . .	1	3	4	1	1	2	1	1	1	2	1	1	2	1	1	2	1



<b>DIGESTIVE SYSTEM:</b>														
Diarrhea and enteritis . . . . .	6	12	18	2	6	8	1	-	1	1	1	-	-	1
Intestinal obstruction . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-
Other diseases of intestines . . . . .	1	1	2	-	-	1	-	-	-	-	-	1	-	1
Other diseases of digestive system (cancer and tuberculosis excepted) . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-
<b>GENITO-URINARY SYSTEM:</b>														
Chronic nephritis . . . . .	1	1	2	1	1	2	-	-	-	-	-	-	-	-
Diseases of bladder . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-
<b>Violence:</b>														
Fractures . . . . .	1	1	2	1	1	2	-	-	-	-	-	-	-	-
Total . . . . .	125	147	272	15	56	71	29	28	57	47	13	60	6	10





TABLE 17. — Age of Patients at Time of Death classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1921.

PSYCHOSES.	TOTAL.			YEARS.																				
	Males.	Females.	Totals.	UNDER 15.			15-19.			20-24.			25-29.			30-34.			35-39.			40-44.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.			
1. Traumatic . . . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2. Senile . . . . .	15	56	71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3. With cerebral arteriosclerosis . . . . .	29	28	57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
4. General paralysis . . . . .	47	13	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5. With cerebral syphilis . . . . .	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7. With brain tumor . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
8. With other brain or nervous diseases . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9. Alcoholic . . . . .	6	1	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10. Due to drugs and other exogenous toxins . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12. With other somatic diseases . . . . .	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
13. Manic-depressive . . . . .	1	9	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14. Involution melancholia . . . . .	4	3	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15. Dementia præcox . . . . .	13	25	38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
16. Paranoia or paranoid conditions . . . . .	—	4	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
17. Epileptic . . . . .	3	2	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
20. With mental deficiency . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
21. Undiagnosed . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total . . . . .	125	147	272	—	—	—	—	—	—	1	4	5	6	4	10	6	6	12	17	11	28	14	11	25





TABLE 18. — *Total Duration of Hospital Life of Patients dying in Hospital classified according to Principal Psychoses for the Year ending Sept. 30, 1921 — Concluded.*

PSYCHOSES.	YEARS.																				
	5 6.			7-8.			9-10.			11-12.			13-14.			15-19.			20 AND OVER.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	1	1	2	1	3	4	1	3	4	1	1	2	1	1	2	1	1	2	1	1	2
2. Senile . . . . .	2	1	3	1	3	4	1	3	4	1	1	2	1	1	2	1	1	2	1	1	2
3. With cerebral arteriosclerosis . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
4. General paralysis . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
5. With cerebral syphilis . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
6. With Huntington's chorea . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
7. With brain tumor . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
8. With other brain or nervous diseases . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
9. Alcoholic . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
11. With pellagra . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
12. With other somatic diseases . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
13. Manic-depressive . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
14. Involution melancholia . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
15. Dementia precox . . . . .	1	3	4	1	4	5	1	4	5	1	1	2	1	1	2	1	1	2	1	1	2
16. Paranoia or paranoid conditions . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
17. Epileptic . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
18. Psychoneuroses and neuroses . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
19. With psychopathic personality . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
20. With mental deficiency . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
21. Undiagnosed . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
22. Without psychosis . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Total . . . . .	4	5	9	2	8	10	2	4	6	2	4	6	2	4	6	2	4	6	2	4	6

TABLE 19. — *Family Care Department, Year ending Sept. 30, 1921.*

	Males.	Females.	Totals.
Remaining in family care Sept. 30, 1920 . . . . .	—	8	8
Admitted within the year . . . . .	—	3	3
Nominally admitted from visit during the year . . . . .	—	—	—
Whole number of cases within the year . . . . .	—	11	11
Dismissed within the year . . . . .	—	3	3
Returned to institution . . . . .	—	3	3
Discharged . . . . .	—	—	—
On visit . . . . .	—	—	—
Remaining in family care Sept. 30, 1921 . . . . .	—	8	8
Supported by State . . . . .	—	2	2
Private . . . . .	—	4	4
Self-supporting . . . . .	—	2	2
Number of different persons within year . . . . .	—	11	11
Number of different persons admitted . . . . .	—	3	3
Number of different persons dismissed . . . . .	—	3	3
Average daily number . . . . .	—	8.87	8.87
State . . . . .	—	2.20	2.20
Private . . . . .	—	4.45	4.45
Self-supporting . . . . .	—	2.22	2.22
Reimbursing . . . . .	—	—	—







The Commonwealth of Massachusetts

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1922

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THE EIGHTY-SECOND ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



PUBLICATION OF THIS DOCUMENT  
APPROVED BY THE  
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## CONTENTS.

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	PAGE
REPORT OF TRUSTEES . . . . .	4
REPORT OF SUPERINTENDENT . . . . .	8
REPORT OF TREASURER . . . . .	47
STATISTICS . . . . .	51

# BOSTON STATE HOSPITAL.

## BOARD OF TRUSTEES.

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FRED A. SIMMONS, M.D.	<i>Laryngologist, Rhinologist and Otolgist.</i>

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ERMY C. NOBLE, M.D.	<i>Assistant Superintendent.</i>
MARY E. GILL NOBLE, M.D.	<i>Senior Assistant Physician.</i>
EDMUND M. PEASE, M.D.	<i>Senior Assistant Physician.</i>
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— — — — —	<i>Assistant Physician.</i>
— — — — —	<i>Pathologist.</i>
LAWRENCE H. STONE, D.M.D.	<i>Dentist.</i>
ARTHUR E. GILMAN	<i>Steward.</i>
ADELINE J. LEARY	<i>Treasurer.</i>

## The Commonwealth of Massachusetts

### TRUSTEES' REPORT.

*To His Excellency the Governor and the Honorable Council.*

The trustees of the Boston State Hospital have the honor to submit herewith their fourteenth annual report.

#### PERSONS UNDER THE CARE OF THE TRUSTEES.

On Dec. 1, 1921, there were 1,915 patients in the hospital, 8 in private care, and 289 on visit or escape, a total of 2,212 persons under the care of the Board. On Nov. 30, 1922, the total number was 2,357, of whom 2,033 were in the hospital, 15 in private care, and 309 on visit or escape.

#### CONSTRUCTION AND IMPROVEMENTS.

The addition to the laundry building, which was authorized in 1921, has been completed and the machinery has been installed. In 1922 the following special appropriations were made: —

For the construction of a veranda, C building, East Group . . . . .	\$8,000 00
For the construction of a veranda, G building, East Group . . . . .	5,000 00
For the construction of an addition to the bakery and the purchase of new ovens and equipment . . . . .	36,000 00
For the construction of an addition to the refrigerating room and the purchase of additional machinery . . . . .	23,000 00

The construction authorized in the various items has been completed, the equipment of the bakery is in place, and the installation of the refrigerating machinery nearly completed. The verandas add very much to the comfort of the patients, and increase considerably the usable capacity of the buildings.

Much has been accomplished during the year in the improvement of the grounds and the renovation and repair of the buildings. The filling of the pond has been completed, and

with some additional surfacing a valuable piece of land will have been acquired. The low land behind the dining room of the East Group is being rapidly reclaimed by the dumping of ashes by the city department. Much is yet to be done in the matter of grading, construction of granolithic walks, and planting before the grounds of the hospital will attain the very promising attractiveness of which they are capable, but remarkable progress has been made in view of the limited amount of labor at our disposal.

#### IMPROVEMENTS RECOMMENDED.

The Department of Mental Diseases has recommended appropriations for the following purposes in the coming year: —

Administration building and staff quarters . . . . .	\$130,000 00
Superintendent's house . . . . .	15,000 00
Extension to sewer, water and steam lines . . . . .	12,000 00
Cottage for twenty farm employees . . . . .	26,000 00
Concrete platform for storage of coal . . . . .	5,000 00
Concrete pavement in front of power house . . . . .	9,000 00
Purchase of land and buildings . . . . .	25,000 00
<hr/>	
Total . . . . .	\$222,000 00

#### ESTIMATES FOR MAINTENANCE.

The following are the estimates for the amount needed for maintenance for the ensuing year, based upon the established salary scale and the data furnished by the Department of Mental Diseases: —

Personal services . . . . .	\$359,499 00
Religious instruction . . . . .	2,080 00
Travel, transportation, etc. . . . .	9,100 00
Food . . . . .	198,831 94
Clothing and material . . . . .	35,731 00
Furnishings and household supplies . . . . .	49,379 00
Medical and general care . . . . .	20,858 10
Heat, light and power . . . . .	120,873 14
Farm . . . . .	8,117 00
Garage, stable and grounds . . . . .	15,868 91
Repairs, ordinary . . . . .	25,150 00
Repairs and renewals . . . . .	51,653 75
<hr/>	
Total . . . . .	\$897,101 84

This estimate is based on an expected population of 2,100, and may be compared with the appropriation for the current year of \$727,407 for a population of 2,050.

#### OCCUPATIONAL WORKERS.

There is no therapeutic agency in the hospital which promises a larger contribution to the welfare of the patients in increasing their contentment, self-respect, and in very many cases an improved mental condition, than the various forms of occupation and industry that are found practicable. The industrial rooms have been of service in this respect for a number of years, but these are available for only certain classes of patients. The present year the addition to our staff of a few persons skilled in occupational therapy has enabled us to extend this service to a larger number of patients on the wards. The expense of furnishing such a teacher for every ward in the hospital would be more than justified by the results, of which our present experience is an assurance.

#### ADMINISTRATIVE DETAILS.

The reports of the superintendent and treasurer and the statistical data which are appended give in full detail the operations of the hospital during the past year.

HENRY LEFAVOUR.  
KATHERINE G. DEVINE.  
JOHN A. KIGGEN.  
WILLIAM F. WHITTEMORE.  
CHARLES B. FROTHINGHAM.  
EDNA W. DREYFUS.  
DAVID M. WATCHMAKER.

Nov. 30, 1922.



## SUPERINTENDENT'S REPORT.

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*To the Board of Trustees of the Boston State Hospital.*

In accordance with the provisions of the statutes, I am submitting for your consideration the report of the superintendent for the statistical year ending Sept. 30, 1922, and the fiscal year ending Nov. 30, 1922. Founded by the city of Boston in 1839, this marks the completion of the eighty-third year of the institution as a hospital for mental diseases and the fourteenth year of its history as a State hospital.

### MOVEMENT OF POPULATION.

The census of the hospital on Sept. 30, 1921, was as follows: in the wards, men, 869, women, 1,070, total, 1,939; at home on visit, men, 103, women, 165, total, 268; boarding out, women, 8; and out on escape, men, 2; making a total of 2,217, 974 men and 1,243 women, in the custody of the hospital.

Three hundred and twenty-one men and 328 women, a total of 649, were received during the year. This included the following: first admissions as insane, men, 235, women, 244,<sup>1</sup> total, 479; readmissions as insane, men, 59, women, 59, total, 118; first admissions, temporary care, men, 8, women, 5, total, 13; readmissions, temporary care, men, 9, women, 4, total, 13; and transferred from other institutions, men, 10, women, 19, total, 29. Two hundred and thirty-six cases, including 119 men and 117 women, were discharged during the year. Eight men and 12 women, a total of 20, were transferred to other institutions. One hundred and forty-six men and 113 women, a total of 259, died during the year.

The census on Sept. 30, 1922, was as follows: in the wards, men, 914, women, 1,144, total, 2,058; at home on visit, men, 98, women, 170, total, 268; boarding out, men, 1, women, 13, total, 14; and out on escape, men, 9, women, 2, total, 11;

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<sup>1</sup> Including three committed from temporary care at the beginning of the year.

making a total of 2,351, 1,022 men and 1,329 women, in the custody of the hospital.

The total number of cases treated during the year was 2,866, 1,295 men and 1,571 women.

The average daily number of patients for the statistical year was: men, 998.62, women, 1,280.82, total, 2,279.44. The average daily number in the wards was: men, 886.41, women, 1,091.96, total, 1,978.37, or 86.79 per cent of the whole number. The average daily number at home on visit was: men, 106.77, women, 177.60, total, 284.37, or 12.47 per cent. The average daily number boarding out was: men, .57, women, 10.15, total, 10.72, or .47 per cent. The average daily number out on escape was: men, 4.87, women, 1.11, total, 5.98, or .27 per cent. The average daily number of committed cases was: men, 873.73, women, 1,069.79, total, 1,943.52, or 98.24 per cent of the number in the wards. The average daily number of voluntary cases was: men, 10.45, women, 20.78, total, 31.23, or 1.58 per cent. The average daily number of emergency cases was: men, .02, women, .06, total, .08, or .004 per cent. The average daily number of cases under complaint or indictment was: men, 9.54, women, 2.92, total, 12.46, or .63 per cent. The average daily number of temporary care cases was: men, 2.22, women, 1.40, total, 3.62, or .18 per cent. The average daily number of epileptics was: men, 14.42, women, 13.17, total, 27.59, or 1.40 per cent. The average daily number of private cases was: men, 19.42, women, 54.17, total, 73.59, or 3.72 per cent. The average daily number of reimbursing cases was: men, 21.27, women, 96.78, total, 118.05, or 5.97 per cent. The average daily number of cases supported by the State was: men, 845.72, women, 941.01, total, 1,786.73, or 90.31 per cent. There was a daily average of 58.59 ex-service men.

The recovery rate, based on the number of first admissions, was 15.87 per cent; based on the total number cared for during the year, 2.65 per cent; based on the average daily number in the wards, 3.84 per cent; and based on the total admissions for the year, 12.9 per cent.

The death rate, based on the total number cared for during the year, was 9.13 per cent; and based on the average daily number in the wards, 13.10 per cent. The death rate of the hospital is unusually large when compared with that of other institutions of a similar character, as over 30 per cent of the

population is of the infirm type, and 8 per cent represents actual bed cases. This is due to the fact that the acutely ill, the senile and the infirm cases from the city cannot be readily transported to distant institutions, and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate.

Of the first admissions as insane, 249, or 52 per cent, were foreign born, and 409, or 85.39 per cent, were of foreign parentage on one or both sides. One hundred and sixteen, or 24.22 per cent, were aliens.

The average age on admission was 49.15; 148, or 30.9 per cent, were sixty years of age or over, and 81, or 16.91 per cent, were seventy years of age or over.

The first admissions for the year, classified according to legal status, were as follows: —

	Males.	Females.	Totals.
Committed cases (section 51, chapter 123, General Laws)	194	206	400
Voluntary admissions (section 86, chapter 123, General Laws).	—	—	—
Emergency commitments (section 78, chapter 123, General Laws).	4	6	10
Cases held under complaint or indictment (section 100, chapter 123, General Laws).	3	2	5
Temporary care cases (section 79, chapter 123, General Laws).	25	25	50
Observation cases (section 77, chapter 123, General Laws)	9	4	13
Boston police cases (chapter 307, Acts of 1910) . . . . .	—	1	1
Total . . . . .	235	244	479

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (section 51, chapter 123, General Laws), 83.51 per cent; voluntary admissions (section 86, chapter 123, General Laws), none; emergency commitments (section 78, chapter 123, General Laws), 2.09 per cent; cases held under complaint or indictment (section 100, chapter 123, General Laws), 1.04 per cent; temporary care cases (section 79, chapter 123, General Laws), 10.44 per cent; observation cases (section 77, chapter 123, General Laws), 2.71 per cent; and Boston police cases (chapter 307, Acts of 1910), .21 per cent. No cases pending examination and hearing (section 55, chapter 123, General Laws) were admitted during the year.

Four hundred committed cases (section 51, chapter 123, General Laws) were admitted during the year. Of these, 9 or 2.25 per cent, were discharged; 4, or .1 per cent, were transferred to other institutions for mental diseases; 68, or 17 per cent, died; and 319, or 79.75 per cent, remained at the end of the statistical year.

Ten emergency cases (section 78, chapter 123, General Laws), were admitted during the year. These were all committed within a few days after admission, and none remained at the end of the statistical year.

Five cases, held under complaint or indictment, were admitted under the provisions of section 100 of chapter 123 of the General Laws. One of these was transferred to another institution and 4 remained in the hospital at the end of the statistical year.

Fifty temporary care cases (section 79, chapter 123, General Laws) were admitted during the year. Of these, 47, or 94 per cent, were committed; and 3, or 6 per cent, changed to emergency status.

Thirteen cases were admitted for observation (section 77, chapter 123, General Laws) during the year. Eleven, or 84.61 per cent, of these were subsequently committed, and 2, or 15.39 per cent, changed to voluntary status.

Of the 479 first admissions, the cause was unascertained or no cause given in 175 cases, or 36.53 per cent. In the 304 cases where a definite cause was assigned the etiological factors reported may be classified as follows: senility, 61, or 20.06 per cent; arteriosclerosis, 44, or 14.47 per cent; syphilis, 45, or 14.80 per cent; alcoholism, 48, or 15.79 per cent; involutional changes, 11, or 3.61 per cent; and traumatism, 9, or 2.96 per cent. There was a family history of mental diseases in 86, or 17.95 per cent, mental defects in 17, or 3.55 per cent, and nervous diseases in 30, or 6.26 per cent, of the first admissions.

The forms of mental disease shown by the first admissions briefly summarized were as follows: senile psychoses, 59, or 12.32 per cent; psychoses with cerebral arteriosclerosis, 85, or 17.74 per cent; general paralysis, 49, or 10.23 per cent; psychoses with other brain or nervous diseases, 6, or 1.25 per cent; alcoholic psychoses, 45, or 9.39 per cent; psychoses with other somatic diseases, 15, or 3.14 per cent; manic-depressive psychoses, 51, or 10.64 per cent; involution melancholia, 13, or

2.71 per cent; dementia praecox, 76, or 15.84 per cent; paranoia or paranoid conditions, 27, or 5.64 per cent; psychoses with mental deficiency, 15, or 3.14 per cent; undiagnosed psychoses, 13, or 2.71 per cent; and all other psychoses 1 per cent or less. The psychoses of all first admissions are shown in Table No. 6, on page 55.

The forms of mental disease shown by the readmissions, briefly summarized, were as follows: senile psychoses, 4, or 3.19 per cent; psychoses with cerebral arteriosclerosis, 4, or 3.19 per cent; general paralysis, 7, or 5.93 per cent; alcoholic psychoses, 12, or 10.17 per cent; manic-depressive, 31, or 26.27 per cent; dementia praecox, 30, or 25.42 per cent; paranoia or paranoid conditions, 8, or 6.38 per cent; psychoses with mental deficiency, 4, or 3.19 per cent; and all other psychoses 1 per cent or less.

Of these readmissions, 88, or 74.58 per cent, were committed under the provisions of section 51, chapter 123, General Laws; 11, or 9.32 per cent, were voluntary admissions (section 86, chapter 123, General Laws); 2, or 1.70 per cent, held under complaint or indictment, were committed under the provisions of section 100, chapter 123, General Laws; 7, or 5.93 per cent, were temporary care cases (section 79, chapter 123, General Laws); 9, or 7.62 per cent, were observation cases (section 77, chapter 123, General Laws); and 1, or .85 per cent, was committed as a Boston police case under the provisions of chapter 307, Acts of 1910.

The following tables show the psychoses of all first admissions classified according to legal status: —

*Psychoses of Committed Cases (Section 51, Chapter 123, General Laws).*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Traumatic psychoses . . . . .	3	—	3	3	—	3
Senile psychoses . . . . .	22	30	52	22	30	52
Simple deterioration . . . . .	15	12	27			
Presbyophrenic type . . . . .	1	2	3			
Delirious and confused . . . . .	—	—	—			
Depressed and agitated . . . . .	1	9	10			
Paranoid states . . . . .	2	5	7			
Presenile types . . . . .	3	2	5			
Psychoses with cerebral arteriosclerosis . . . . .	26	32	58	26	32	58

*Psychoses of Committed Cases (Section 51, Chapter 123, General Laws) —*  
*Concluded.*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
General paralysis . . . . .	..	..	..	38	9	47
Psychoses with cerebral syphilis . . . . .	..	..	..	-	2	2
Psychoses with Huntington's chorea . . . . .	..	..	..	1	-	1
Psychoses with brain tumor . . . . .	..	..	..	-	1	1
Psychoses with other brain or nervous diseases . . . . .	..	..	..	2	3	5
Cerebral hemorrhage . . . . .	-	1	1			
Cerebral embolism . . . . .	-	1	1			
Paralysis agitans . . . . .	1	-	1			
Cerebrospinal meningitis . . . . .	1	-	1			
Spastic paraplegia . . . . .	-	1	1			
Alcoholic psychoses . . . . .	..	..	..	25	13	38
Pathological intoxication . . . . .	4	1	5			
Delirium tremens . . . . .	-	-	-			
Acute hallucinosis . . . . .	5	5	10			
Acute paranoid type . . . . .	3	1	4			
Korsakow's psychosis . . . . .	-	2	2			
Chronic hallucinosis . . . . .	5	2	7			
Chronic paranoid type . . . . .	5	1	6			
Alcoholic deterioration . . . . .	3	1	4			
Other types . . . . .	-	-	-			
Psychoses with pellagra . . . . .	..	..	..	-	1	1
Psychoses with other somatic diseases . . . . .	..	..	..	2	8	10
Post-infectious psychosis . . . . .	-	1	1			
Exhaustion delirium . . . . .	-	2	2			
Delirium of unknown origin . . . . .	-	1	1			
Cardiorenal disease . . . . .	2	-	2			
Carcinoma . . . . .	-	2	2			
Uremia . . . . .	1	1	2			
Acute nephritis . . . . .	-	1	1			
Manic-depressive psychoses . . . . .	..	..	..	8	35	43
Manic type . . . . .	7	17	24			
Depressive type . . . . .	-	17	17			
Stuporous type . . . . .	-	-	-			
Mixed type . . . . .	1	1	2			
Circular type . . . . .	-	-	-			
Involution melancholia . . . . .	..	..	..	7	5	12
Dementia praecox . . . . .	..	..	..	42	29	71
Paranoid type . . . . .	23	14	37			
Catatonic type . . . . .	12	7	19			
Hebephrenic type . . . . .	6	5	11			
Simple type . . . . .	1	3	4			
Paranoia or paranoid conditions . . . . .	..	..	..	3	19	22
Epileptic psychoses . . . . .	..	..	..	1	1	2
Clouded states . . . . .	1	1	2			
Psychoneuroses and neuroses . . . . .	..	..	..	-	-	-
Psychoses with psychopathic personality . . . . .	..	..	..	1	2	3
Psychoses with mental deficiency . . . . .	..	..	..	7	6	13
Undiagnosed psychoses . . . . .	..	..	..	6	4	10
Without psychosis . . . . .	..	..	..	-	6	6
Mental deficiency without psychosis . . . . .	-	6	6			
Total . . . . .	..	..	..	194	206	400

*Psychoses of Emergency Cases (Section 78, Chapter 123, General Laws).*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Senile psychoses . . . . .	.	.	.	1	-	1
Paranoid type . . . . .	1	-	1			
Psychoses with cerebral arteriosclerosis . . . . .	.	.	.	2	2	4
Alcoholic psychoses . . . . .	.	.	.	-	1	1
Alcoholic deterioration . . . . .	-	1	1			
Psychoses with other somatic diseases . . . . .	.	.	.	-	1	1
Fernicious anemia . . . . .	-	1	1			
Involution melancholia . . . . .	.	.	.	1	-	1
Dementia praecox . . . . .	.	.	.	-	1	1
Paranoid type . . . . .	-	1	1			
Paranoia or paranoid condition . . . . .	.	.	.	-	1	1
Total . . . . .	.	.	.	4	6	10

*Psychoses of Cases held under Complaint or Indictment (Section 100, Chapter 123, General Laws).*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Alcoholic psychoses . . . . .	.	.	.	1	-	1
Pathological intoxication . . . . .	1	-	1			
Manic-depressive psychoses . . . . .	.	.	.	-	1	1
Depressive type . . . . .	-	1	1			
Dementia praecox . . . . .	.	.	.	-	1	1
Paranoid type . . . . .	-	1	1			
Undiagnosed psychoses . . . . .	.	.	.	2	-	2
Total . . . . .	.	.	.	3	2	5

*Psychoses of Temporary Care Cases (Section 79, Chapter 123, General Laws).*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Senile psychoses . . . . .	2	2	4	2	4	6
Simple deterioration . . . . .	—	1	1			
Depressed and agitated type . . . . .	—	1	1			
Paranoid type . . . . .						
Psychoses with cerebral arteriosclerosis . . . . .				10	12	22
General paralysis . . . . .				2	—	2
Psychosis with other brain or nervous disease . . . . .				—	1	1
Encephalitis lethargica . . . . .	—	1	1			
Alcoholic psychoses . . . . .				2	—	2
Acute hallucinosis . . . . .	1	—	1			
Chronic paranoid type . . . . .	1	—	1			
Psychoses with other somatic diseases . . . . .				2	2	4
Cardiorenal disease . . . . .	1	—	1			
Carcinoma . . . . .	1	—	1			
Sarcoma . . . . .	—	1	1			
Chronic enteritis . . . . .	—	1	1			
Manic-depressive psychoses . . . . .				3	1	4
Manic type . . . . .	1	—	1			
Depressive type . . . . .	2	1	3			
Dementia præcox . . . . .				—	1	1
Paranoid type . . . . .	—	1	1			
Paranoia or paranoid conditions . . . . .				—	4	4
Epileptic psychoses . . . . .				2	—	2
Clouded states . . . . .	2	—	2			
Psychosis with psychopathic personality . . . . .				1	—	1
Undiagnosed psychosis . . . . .				1	—	1
Total . . . . .				25	25	50

*Psychoses of Observation Cases (Section 77, Chapter 123, General Laws).*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Psychoses with cerebral arteriosclerosis . . . . .				1	—	1
Alcoholic psychoses . . . . .				3	—	3
Acute paranoid type . . . . .	1	—	1			
Chronic paranoid type . . . . .	1	—	1			
Alcoholic deterioration . . . . .	1	—	1			
Manic-depressive psychoses . . . . .				—	3	3
Depressive type . . . . .	—	3	3			
Dementia præcox . . . . .				1	—	1
Paranoid type . . . . .	1	—	1			
Psychoneuroses and neuroses . . . . .				3	—	3
Neurasthenic type . . . . .	2	—	2			
Anxiety neurosis . . . . .	1	—	1			
Psychoses with mental deficiency . . . . .				1	1	2
Total . . . . .				9	4	13



*Psychosis of Boston Police Case (Chapter 307, Acts of 1910).*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Dementia praecox . . . . .	·	·	·	-	1	1
Hebephrenic type . . . . .	·	·	·			

Seventy-three temporary care cases (section 79, chapter 123, General Laws) were admitted during the year ending Sept. 30, 1922. Fifty-four were committed under the provisions of section 51, chapter 123, General Laws, 4 changed to emergency status, none to voluntary, and 2 to observation status. Of the 7 discharges, 6, or 85.71 per cent, were discharged as unimproved; and 1, or 14.29 per cent, as without psychosis. Four died, 1 was transferred, and 1 remained at the end of the statistical year.

Two Boston police cases (chapter 307, Acts of 1910) were admitted during the year. These were both committed.

Ten emergency cases (section 78, chapter 123, General Laws) were admitted during the year. All of these were committed, leaving none at the end of the statistical year. In addition to this, there should be noted 4 cases shown in the admissions for the year as temporary care cases, later committed under the provisions of section 78, and finally under section 51, chapter 123, General Laws.

Thirty-three observation cases (section 77, chapter 123, General Laws) were admitted during the year. Twenty were committed, 10 discharged, 2 were changed to voluntary status, none died and 1 case remained at the end of the statistical year. Of the 10 discharges, 4, or 40 per cent, were discharged as recovered; 1, or 10 per cent, as improved; 1, or 10 per cent, as unimproved; and 4, or 40 per cent, as without psychosis. In addition to this there should be noted 2 cases shown in the admissions for the year as temporary care cases, and subsequently committed under the provisions of section 77, chapter 123, General Laws.

Seven cases held under complaint or indictment (section 100, chapter 123, General Laws) were admitted during the year. Of these, 1 was transferred to another hospital, and the remaining 6 are still in the institution.

Ten voluntary cases (section 86, chapter 123, General Laws) were admitted during the year. One of these was committed, 1 discharged, none died, and 8 remained at the end of the statistical year. In addition to the above, 2 cases shown in the admissions for the year as observation cases (section 77, chapter 123, General Laws) were changed to voluntary status.

The following table shows the psychoses of all cases admitted as temporary care and subsequently committed under the provisions of section 51, chapter 123, General Laws:—

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Senile psychoses . . . . .	2	2	4	3	4	7
Simple deterioration . . . . .	1	1	2			
Depressed and agitated type . . . . .	1	1	2			
Paranoid type . . . . .	1	1	2			
Psychoses with cerebral arteriosclerosis . . . . .				13	15	28
General paralysis . . . . .				3	—	3
Psychoses with other brain or nervous diseases . . . . .				1	1	2
Encephalitis lethargica . . . . .	1	1	2			
Alcoholic psychoses . . . . .				6	4	10
Acute hallucinosis . . . . .	1	—	1			
Chronic hallucinosis . . . . .	—	1	1			
Acute paranoid type . . . . .	1	—	1			
Chronic paranoid type . . . . .	2	—	2			
Alcoholic deterioration . . . . .	2	3	5			
Psychoses with other somatic diseases . . . . .				2	3	5
Cardiorenal disease . . . . .	1	—	1			
Carcinoma . . . . .	1	—	1			
Sarcoma . . . . .	—	1	1			
Pernicious anemia . . . . .	—	1	1			
Chronic enteritis . . . . .	—	1	1			
Manic-depressive psychoses . . . . .				5	6	11
Manic type . . . . .	3	3	6			
Depressive type . . . . .	2	3	5			
Involution melancholia . . . . .				1	—	1
Dementia praecox . . . . .				3	4	7
Paranoid type . . . . .	2	2	4			
Hebephrenic type . . . . .	1	2	3			
Paranoia or paranoid conditions . . . . .				—	7	7
Epileptic psychoses . . . . .				2	—	2
Clouded states . . . . .	2	—	2			
Psychoneuroses and neuroses . . . . .				1	1	2
Hysterical type . . . . .	—	1	1			
Neurasthenic type . . . . .	1	—	1			
Psychoses with psychopathic personality . . . . .				1	1	2
Psychoses with mental deficiency . . . . .				1	1	2
Undiagnosed psychosis . . . . .				1	—	1
Total . . . . .				43	47	90

The following table shows the psychoses of all admissions during the year, exclusive of transfers:—

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Traumatic psychoses . . . . .	4	—	4	4	—	4
Senile psychoses . . . . .	27	41	68	27	41	68
Simple deterioration . . . . .	17	18	35			
Presbyophrenic type . . . . .	3	2	5			
Delirious and confused types . . . . .	—	—	—			
Depressed and agitated types . . . . .	1	11	12			
Paranoid types . . . . .	3	8	11			
Presenile type . . . . .	3	2	5			
Psychoses with cerebral arteriosclerosis . . . . .	42	48	90	42	48	90
General paralysis . . . . .	47	10	57	47	10	57
Psychoses with cerebral syphilis . . . . .	3	2	5	3	2	5
Psychosis with Huntington's chorea . . . . .	1	—	1	1	—	1
Psychosis with brain tumor . . . . .	—	1	1	—	1	1
Psychoses with other brain or nervous diseases . . . . .	4	5	9	4	5	9
Cerebral embolism . . . . .	—	2	2			
Paralysis agitans . . . . .	1	—	1			
Meningitis, tubercular or other forms . . . . .	1	—	1			
Multiple sclerosis . . . . .	—	—	—			
Tabes dorsalis . . . . .	1	—	1			
Acute chorea . . . . .	—	—	—			
Other diseases . . . . .	1	3	4			
Alcoholic psychoses . . . . .	41	18	59	41	18	59
Pathological intoxication . . . . .	6	1	7			
Delirium tremens . . . . .	—	—	—			
Acute hallucinosis . . . . .	6	5	11			
Chronic hallucinosis . . . . .	8	3	11			
Korsakow's psychosis . . . . .	—	2	2			
Acute paranoid type . . . . .	5	1	6			
Chronic paranoid type . . . . .	7	1	8			
Alcoholic deterioration . . . . .	9	5	14			
Other types, acute or chronic . . . . .	—	—	—			
Psychosis due to drugs or other exogenous toxins . . . . .	1	—	1	1	—	1
Opium . . . . .	1	—	1			
Psychosis with pellagra . . . . .	—	1	1	—	1	1
Psychoses with other somatic diseases . . . . .	5	14	19	5	14	19
Delirium with infectious disease . . . . .	—	—	—			
Post-infectious psychosis . . . . .	—	1	1			
Exhaustion delirium . . . . .	—	2	2			
Delirium of unknown origin . . . . .	1	1	2			
Cardiorenal diseases . . . . .	3	1	4			
Diseases of the ductless glands . . . . .	—	—	—			
Other diseases or conditions . . . . .	1	9	10			
Manic-depressive psychoses . . . . .	25	57	82	25	57	82
Manic type . . . . .	13	23	36			
Depressive type . . . . .	9	32	41			
Stuporous type . . . . .	1	—	1			
Mixed type . . . . .	2	2	4			
Circular type . . . . .	—	—	—			
Involution melancholia . . . . .	8	6	14	8	6	14
Dementia præcox . . . . .	60	47	107	60	47	107
Paranoid type . . . . .	34	25	59			
Catatonic type . . . . .	14	7	21			
Hebephrenic type . . . . .	8	11	19			
Simple type . . . . .	4	4	8			
Other types . . . . .	—	—	—			

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Paranoia or paranoid conditions . . . . .	.	.	.	3	33	36
Epileptic psychoses . . . . .	.	.	.	3	1	4
Epileptic deterioration . . . . .	.	.	.			
Epileptic clouded states . . . . .	3	1	4			
Other epileptic types . . . . .	-	-	-			
Psychoneuroses and neuroses . . . . .	.	.	.	3	3	6
Hysterical type . . . . .	.	1	1			
Psychasthenic type . . . . .	1	-	1			
Neurasthenic type . . . . .	2	2	4			
Anxiety neuroses . . . . .	-	-	-			
Other types . . . . .	-	-	-			
Psychoses with psychopathic personality . . . . .	.	.	.	2	4	6
Psychoses with mental deficiency . . . . .	.	.	.	13	8	21
Undiagnosed psychoses . . . . .	.	.	.	10	4	14
Without psychosis . . . . .	.	.	.	9	9	18
Epilepsy without psychosis . . . . .	-	-	-			
Alcoholism without psychosis . . . . .	1	-	1			
Drug addiction without psychosis . . . . .	-	-	-			
Psychopathic personality without psychosis . . . . .	3	1	4			
Mental deficiency without psychosis . . . . .	1	7	8			
Others . . . . .	4	1	5			
Arteriosclerosis . . . . .	1	-	1			
Simple depression . . . . .	1	-	1			
Acute delirium . . . . .	1	-	1			
Neurasthenia . . . . .	-	1	1			
Family dissension . . . . .	1	-	1			
Total . . . . .	.	.	.	311	312	623

The psychoses represented by the cases discharged from the hospital during the year were as follows: traumatic psychoses, 1, or .46 per cent; senile psychoses, 6, or 2.77 per cent; psychoses with cerebral arteriosclerosis, 13, or 6.02 per cent; general paralysis, 6, or 2.77 per cent; psychoses with cerebral syphilis, 1, or .46 per cent; alcoholic psychoses, 20, or 9.22 per cent; psychoses due to drugs and other exogenous toxins, 1, or .46 per cent; psychoses with other somatic diseases, 3, or 1.38 per cent; manic-depressive psychoses, 79, or 36.41 per cent; involution melancholia, 10, or 4.63 per cent; dementia praecox, 46, or 21.69 per cent; paranoia or paranoid conditions, 10, or 4.61 per cent; epileptic psychosis, 1, or .46 per cent; psychoneuroses and neuroses, 4, or 1.84 per cent; psychoses with psychopathic personality, 8, or 3.68 per cent; psychoses with mental deficiency, 2, or .92 per cent; and without psychoses, 3, or 1.38 per cent.

The total number of cases discharged during the year was 217. Of this number, 76, or 35.02 per cent, were discharged as

recovered; 108, or 49.77 per cent, as improved; 30, or 13.83 per cent, as unimproved; and 3, or 1.38 per cent, as without psychosis. Of the 76 recovered cases, 57, or 75 per cent, were cases of manic-depressive psychoses; 10, or 13.16 per cent, alcoholic psychoses; 4, or 5.26 per cent, psychoses with psychopathic personality; and 3, or 4 per cent, psychoses with other somatic diseases. Of the 108 cases discharged as improved, 34, or 31.48 per cent, were cases of dementia praecox; 22, or 20.37 per cent, manic-depressive psychoses; 12, or 11.11 per cent, psychoses with cerebral arteriosclerosis; 9, or 8.33 per cent, alcoholic psychoses; 6, or 5.55 per cent, paranoia or paranoid conditions; 4, or 3.7 per cent, psychoses with psychopathic personality; and 3, or 2.78 per cent, each of general paralysis and psychoneuroses and neuroses. Of the 30 cases discharged as unimproved, 13, or 43.35 per cent, were dementia praecox; 4, or 13.33 per cent, senile psychoses; 3, or 10 per cent, general paralysis; 3, or 10 per cent, involution melancholia; and 3, or 10 per cent, paranoia or paranoid conditions.

A study of the entire hospital residence (including other institutions for mental diseases) of the cases discharged during the statistical year is of considerable interest. Twelve, or 5.53 per cent, were discharged after a residence of less than one month; 75, or 34.56 per cent, after a residence of from one to six months; 38, or 17.51 per cent, from six months to one year; 39, or 17.97 per cent, from one to two years; 18, or 8.29 per cent, two to three years; 13, or 5.99 per cent, three to four years; 5, or 2.30 per cent, four to five years; 14, or 6.45 per cent, five to ten years; and 3, or 1.38 per cent, over ten years. The average duration of total hospital residence was 1 year, six months and twenty-one days.

Of the 255 deaths occurring during the year, 147, or 57.70 per cent, represented cases dying at the age of sixty or over. In 79 cases, or 30.98 per cent, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: bronchopneumonia, 80, or 31.30 per cent; arteriosclerosis, 32, or 12.55 per cent; tuberculosis of the lungs, 22, or 8.63 per cent; chronic endocarditis, 21, or 8.23 per cent; chronic myocarditis, 16, or 6.27 per cent; general paralysis of the insane, 15, or 5.88 per cent; and cerebral hemorrhage, 10, or 3.92 per cent.

The psychoses represented by deaths occurring in the hospital during the year were as follows: senile psychoses, 50, or 19.62 per cent; psychoses with cerebral arteriosclerosis, 74, or 29.02 per cent; general paralysis, 48, or 18.82 per cent; psychoses with cerebral syphilis, 4, or 1.57 per cent; psychoses with other brain or nervous diseases, 5, or 1.96 per cent; alcoholic psychoses, 7, or 2.74 per cent; psychoses with other somatic diseases, 9, or 3.53 per cent; manic-depressive psychoses, 13, or 5.10 per cent; involution melancholia, 7, or 2.74 per cent; dementia praecox, 24, or 9.42 per cent; paranoia or paranoid conditions, 6, or 2.35 per cent; and epileptic psychoses, 4, or 1.57 per cent. Of the 50 cases of senile psychoses dying in the hospital during the year, 15, or 30 per cent, were due to bronchopneumonia. Of the 74 cases of arteriosclerotic psychoses, death was due in 24, or 32.43 per cent, to bronchopneumonia, and in 21, or 28.38 per cent, death was attributed directly to arteriosclerosis. Of the 48 cases of general paralysis, 27, or 25.25 per cent, were reported as dying from bronchopneumonia, and in 15, or 31.25 per cent, general paralysis of the insane was given as the cause of death. Of the 24 cases of dementia praecox, death was due in 14, or 58.33 per cent, to pulmonary tuberculosis. Of the 7 cases of involution melancholia, the cause of death was reported as bronchopneumonia in 2, or 28.57 per cent.

Of the 255 patients dying in the hospital during the year the total duration of hospital residence was as follows: one year or less, 134, or 52.55 per cent; one to two years, 40, or 15.68 per cent; two to three years, 19, or 7.45 per cent; three to four years, 11, or 4.31 per cent; four to five years, 7, or 2.74 per cent; five to six years, 6, or 2.35 per cent; six to seven years, 10, or 3.92 per cent; seven to eight years, 6, or 2.35 per cent; eight to nine years, 2, or .78 per cent; nine to ten years, 1, or .39 per cent; ten to fifteen years, 13, or 5.10 per cent; fifteen to twenty years, 3, or 1.18 per cent; and over twenty years, 3, or 1.18 per cent. The average duration of hospital residence of the cases dying in the hospital during the year was two years, seven months and twenty-one days. The psychoses showing the longest hospital residence were as follows: dementia praecox, 2 over twenty-three years and 1 thirty-three years; and cerebral arteriosclerosis, 1 over seventeen years.

The following general statistical information relating to the ward service should be of interest: —

	Males.	Females.	Totals.	Percentage.
Average daily population . . .	886.41	1,091.96	1,978.37	100.00
In bed . . . . .	84.59	87.51	172.10	8.69
In restraint . . . . .	3.26	2.28	5.54	.27
In seclusion . . . . .	3.24	13.94	17.18	.86
Eating in dining rooms . . .	778.87	853.85	1,632.72	82.53
Eating on wards . . . . .	107.54	238.11	345.65	17.47
Fed by nurses . . . . .	22.92	37.50	60.42	3.05
Idle . . . . .	397.86	578.31	976.17	49.34
Employed . . . . .	488.55	513.65	1,002.20	50.66
Parole of grounds . . . . .	149.85	54.17	204.02	10.31
Out for exercise . . . . .	750.28	671.16	1,421.44	71.84
Noisy . . . . .	45.78	131.42	177.20	8.95
Violent . . . . .	.60	33.17	33.77	1.71
Destructive . . . . .	2.55	36.67	39.22	1.98
Soiled or wet . . . . .	44.58	154.80	199.38	10.08
Taking medicine . . . . .	13.68	28.39	42.07	2.13
Infirm . . . . .	313.70	377.93	691.63	34.96

The percentages shown in the above table represent the average daily number in each instance for the entire year, thus: the average daily number of patients in bed was 172.10, or 8.69 per cent of the average daily population, and the average daily number out for exercise was 1,421.44, or 71.84 per cent of the average daily population. The table shows an unusually large percentage of our population to consist of bed cases. As has already been explained, this is largely due to the fact that the senile and infirm cases cannot readily be removed to institutions outside of the metropolitan district, and come to the Boston State Hospital. The hospital has, for this reason, an infirmary class approximating 30 per cent of the total number of cases cared for. The number of patients in restraint and seclusion, as shown by the above table, although small, is due in part to the fact that there has been such an unfortunate shortage of nurses and attendants. If the percentage of infirm cases is eliminated (and this, of course, includes the bed patients), the average daily number going out for exercise must

be looked upon as quite large. The average daily number of noisy patients is of considerable interest. The number of patients actually violent is not at all consistent with the popular ideas regarding institutions of this type. The number of patients actually employed in useful occupations should not be looked upon as small if the percentage of bed cases is taken into consideration. The number actually taking medicine would be considerably smaller if it were not for the senile and infirm population.

#### GENERAL HEALTH OF THE HOSPITAL.

The general health of the hospital has been very satisfactory during the past year. There were no serious epidemics of any kind. Twenty cases of enteritis of a mild type were reported from various wards and buildings in October. The nature of the infection could not be determined. There were a few scattering cases of influenza during the months of February and March. These included four nurses and attendants and 34 patients. No further cases developed after the first of April. The disease, as a rule, assumed a mild form and there were no deaths.

There was the usual number of minor accidents and injuries in the wards of the hospital throughout the year. All of these were thoroughly investigated and reported in the usual manner to the Board of Trustees and the Department of Mental Diseases. There were, however, no homicides or suicides.

The number of deaths occurring during the year is shown on page 7 and the autopsy rate is given in the report of the pathological laboratory for the year.

#### EMPLOYEES.

The problem of maintaining an adequate force of employees in the hospital has not been so serious as it was during the preceding year. On Sept. 30, 1921, there were 386 persons in the employ of the hospital. During the year 656 were appointed, 627 resigned and 29 were discharged. Ten hundred and forty-two persons occupied 435 positions, — a rotation of 2.39. The average daily number of employees during the year was 393.69, with 8.77 per cent of vacancies. The average daily number in the ward service was 226.86, with 10.94 per



cent of vacancies. The ratio of ward employees was 1 to 8.73 patients, and of all employees, 1 to 5.05. Although this represents a slight improvement over the past year, the shortage, especially in the ward service, has been such as to interfere somewhat with the efficient and proper care of patients. This has affected the medical service in various ways. Less patients have been employed and there has been more restraint and seclusion than would be needed ordinarily. The lack of ward supervision, moreover, has resulted in a destruction of clothing and other ward supplies that is of considerable importance from a financial point of view. The limited number of nurses and attendants has, of course, materially interfered with our ability to satisfactorily handle the large number of visitors calling at the hospital to see their relatives and friends. The total number of visits made to the patients during the last year was 58,936. We often have 500 or 600 visitors during one day, the highest number on any one day during the year being 992. The decrease in the number of nurses is, of course, a material factor in increasing accidents, injuries and escapes. At the present time there is much less difficulty in obtaining the services of male employees. It is still hard, however, to maintain an adequate force of female nurses and attendants. This is due, doubtless, in part, to the fact that the hours of duty are long, and association with mental cases is not attractive to those who are not familiar with this line of work. This is a problem, however, which has affected the general hospitals as much as it has the institutions for mental diseases. Under the circumstances, if an increased compensation is not possible for ward employees, certainly no reduction should be contemplated. One of the factors which has interfered with our maintenance of an adequate force of ward employees heretofore has been the lack of comfortable living quarters. The occupancy of the new nurses' home in the East Group has remedied this situation in a way which has already been productive of definite results. At the present time we are unable to properly house male ward attendants. The employees' cottage occupied by men has a capacity of only 42. Our quota of male attendants is 110. It has been necessary for them to be quartered in attics and in many other places which are far from being desirable. We are badly in need of a new

building for male ward attendants. We have no satisfactory place for employees engaged in outside work. The old farmhouse in the West Group, which furnishes quarters for only 19 persons, is in such a condition that it should be torn down and replaced as soon as possible. There has always been difficulty in inducing our employees to live in it. The fact that our male attendants have been scattered around in so many different places has, of course, made it difficult to keep them under proper supervision.

The shortage of staff quarters is also a serious matter which should be remedied as soon as the cost of construction will permit. Various officers and employees assigned to the East Group have from time to time been compelled to live in buildings in the West Group, nearly a mile away.

#### THE MEDICAL SERVICE.

The following changes have taken place in the medical service during the year. Dr. Rebekah B. Wright, who has been hydrotherapist at the hospital for some time, resigned on Dec. 31, 1921, to accept a position with the Department of Mental Diseases for the purpose of making a survey of hydrotherapy in the various State hospitals. Dr. Ralph M. Putnam, who was appointed assistant physician on Dec. 15, 1921, resigned on August 9. Dr. Frederick H. Gebhardt, who was appointed assistant physician on Oct. 27, 1921, resigned on Jan. 6, 1922. Dr. Anna E. Steffen was appointed assistant physician on Jan. 15, 1922. Dr. Steffen received the degree of A.B. from Oberlin College in 1912 and was graduated from Tufts Medical School in 1918. She was interne at Long Island Hospital for two years and also served for some time as assistant medical director in the municipal court. Dr. Shichi Uyematsu, whose appointment as pathologist was noted last year, resigned on March 18, 1922, and returned to Japan. Dr. Roy D. Halloran was appointed assistant physician on April 1, 1922. He received the degree of A.B. at Dartmouth College in 1917 and was graduated from the college of Physicians and Surgeons in New York City in 1920. He served for a year and a half as interne at the Newark City Hospital, Newark, N. J. Dr. Alberta S. B. Guibord, who has for some time served as psychiatrist to the Church Home Society of Boston, was ap-

pointed assistant physician on April 17, 1922, and detailed to act as the hospital's representative in the mental examination of children in the public schools under the supervision of the Department of Mental Diseases. Dr. Roderick B. Dexter, who was appointed assistant physician May 23, 1917, and promoted to the position of senior assistant physician on June 1, 1920, resigned on November 30 to accept an appointment as assistant superintendent at the Taunton State Hospital. Dr. Albert Evans of Boston was appointed consulting physician on May 15, 1922.

Staff meetings have been held as usual during the year, alternating between the East and West groups. Efforts have been made to present all new admissions at staff meetings, as well as cases about to leave the hospital on visit or cases to be discharged.

The surgical work of the hospital has been largely in the charge of Dr. Irving J. Walker of Boston, who visits the hospital regularly and has performed several operations. The following is a summary of the more important surgical work of the year, including cases sent to the City Hospital for operation at that place: —

Amputation of left breast . . . . .	1
Amputation of right breast . . . . .	1
Appendectomy . . . . .	1
Carcinoma of breast . . . . .	1
Carcinoma of stomach . . . . .	1
Curetment of right side of face . . . . .	1
Exploratory laparotomy, with drainage . . . . .	1
Hysterectomy and removal of tumor . . . . .	1
Incision, and drainage of bladder . . . . .	1
Incision, and drainage of left thigh . . . . .	1
Incision, and drainage of neck . . . . .	1
Removal of carbuncle from back of head . . . . .	1
Removal of tumor of left breast . . . . .	1
Purulent peritonitis . . . . .	1

#### OUT-PATIENT SERVICE.

The work of the out-patient department of the hospital, includes the supervision of patients in family care, those at home on visit, the after care of cases discharged from the custody of the hospital, and medical advice given to numerous persons

who visit the hospital for the purpose of consulting members of the staff on matters pertaining to their own welfare or that of their family or relatives. The patients who have been allowed to go home on visit, or who have left the hospital temporarily for family care, are visited at frequent intervals by the social service workers of the hospital. Patients who are at home on visit are also required to present themselves at the hospital at regular intervals for observation. Considerable supervision is also given to former patients who have been discharged but who are kept under observation by the social workers and the physicians. Some cases appearing for consultation are accepted as voluntary patients. Others are referred to their family physicians or to the Boston Psychopathic Hospital. The following is a report of the movement of population of patients under the supervision of the out-patient department:—

	Males.	Females.	Totals.
In family care Sept. 30, 1921 . . . . .	—	8	8
On escape Sept. 30, 1921 . . . . .	2	—	2
On visit Sept. 30, 1921 . . . . .	103	165	268
Dismissed to family care during the year . . . . .	1	9	10
Escaped during the year . . . . .	30	11	41
Dismissed on visit during the year . . . . .	1,310	808	2,118
Admitted from family care . . . . .	—	4	4
Admitted from escape . . . . .	20	9	29
Admitted from visit . . . . .	1,230	700	1,930
Admitted from family care and discharged . . . . .	—	—	—
Admitted from escape and discharged . . . . .	3	—	3
Admitted from visit and discharged . . . . .	85	103	188
In family care Sept. 30, 1922 . . . . .	1	13	14
On escape Sept. 30, 1922 . . . . .	9	2	11
On visit Sept. 30, 1922 . . . . .	98	170	268

## SOCIAL SERVICE DEPARTMENT.

The following is a summary of the social service work done during the year under the direction of Miss Marie L. Donohoe:—

	Males.	Females.	Totals.
Total number of cases considered during the year:	577	657	1,234
(a) New cases . . . . .	169	192	361
(b) Renewed cases . . . . .	63	119	182
(c) Continued cases . . . . .	188	234	422
(d) Outside cases . . . . .	—	4	4
(e) School clinic cases (new) . . . . .	157	108	265
Sources of new cases:			
(a) Referred by physicians . . . . .	128	138	266
(b) Referred by other agencies . . . . .	27	18	45
(c) Referred by friends or relatives . . . . .	—	6	6
(d) Referred by patient's own initiative . . . . .	—	—	—
(e) Selected by social worker . . . . .	14	30	44
(f) Referred by schools . . . . .	157	108	265
Purposes for which new cases were referred:			
(a) Medical history . . . . .	65	50	115
(b) Medical-social history . . . . .	20	20	40
(c) Investigation of home conditions . . . . .	17	63	80
(d) Social investigations . . . . .	43	86	129
(e) Special investigations . . . . .	82	87	169
(f) Supervision while at home (general) . . . . .	167	312	479
(g) Supervision while at home (special) . . . . .	25	151	176
(h) Family assistance . . . . .	61	70	131
(i) Employment . . . . .	25	33	58
(j) Family care department . . . . .	1	20	21
(k) School histories . . . . .	157	108	265
(l) Miscellaneous:			
Personal service and location of relatives . . . . .	68	71	139
Soldier cases . . . . .	113	—	113
Medical diagnoses of new cases:			
1. Traumatic psychosis . . . . .	1	—	1
2. Senile psychoses . . . . .	11	18	29
3. Psychoses with cerebral arteriosclerosis . . . . .	13	14	27
4. General paralysis . . . . .	21	6	27
5. Psychoses with cerebral syphilis . . . . .	5	—	5
6. Psychoses with Huntington's chorea . . . . .	—	—	—
7. Psychoses with brain tumor . . . . .	—	—	—
8. Psychoses with other brain or nervous diseases . . . . .	1	2	3
9. Alcoholic psychoses . . . . .	19	15	34
10. Psychoses with drugs and other exogenous toxins . . . . .	—	1	1
11. Psychoses with pellagra . . . . .	—	1	1
12. Psychoses with other somatic diseases . . . . .	2	8	10
13. Manic-depressive psychoses . . . . .	18	40	58
14. Involution melancholia . . . . .	3	8	11
15. Dementia praecox . . . . .	42	37	79
16. Paranoia or paranoid conditions . . . . .	4	13	17
17. Epileptic psychoses . . . . .	1	—	1
18. Psychoneuroses and neuroses . . . . .	2	3	5
19. Psychoses with psychopathic personality . . . . .	5	3	8
20. Psychoses with mental deficiency . . . . .	5	6	11
21. Undiagnosed psychoses . . . . .	11	7	18
22. Without psychosis . . . . .	5	10	15
Social problems in all cases:			
(a) Disease:			
Mental . . . . .	134	306	440
Physical . . . . .	18	36	54
(b) Poverty . . . . .	49	68	117
(c) Environmental problems . . . . .	12	76	88
(d) Sex problems . . . . .	—	15	15
(e) Educational problems . . . . .	24	84	108
(f) Employment problems . . . . .	45	83	128
(g) Family problems . . . . .	47	145	192
(h) Legal problems . . . . .	—	—	—
(i) Moral problems . . . . .	1	28	29
(j) Criminality . . . . .	2	4	6
(k) Unclassed . . . . .	23	17	40
(l) No social problem . . . . .	55	10	65
(m) School problems . . . . .	157	108	265

	Males.	Females.	Totals.
Nature of service rendered in all cases:			
Arrangements made for hospital or medical care (number of cases)	8	20	28
Arrangements made for occupational therapy	5	24	29
Arrangements made for nursing service	—	1	1
Arrangements made for readjustment:			
(a) Home	16	100	116
(b) Work	20	57	77
(c) Recreation	3	33	36
(d) Church	—	2	2
Arrangements made for community supervision (number of cases)	192	463	655
Number of cases referred to relief agencies	15	12	27
Referred to special agencies	63	13	76
Referred to venereal disease clinics	—	—	—
Referred for follow-up work (Psychopathic Hospital)	—	—	—
Referred to employment agencies	22	22	44
Educational work:			
Hygiene	22	42	64
Industry	7	17	24
School	—	12	12
Home making	—	4	4
Medical histories obtained	65	50	115
School histories obtained	157	108	265
Investigations only	59	47	106
Legal aid secured or advised (number of cases)	60	13	73
Advice to patients	62	144	206
Advice to relatives	84	173	257
Family work	35	87	122
Miscellaneous: personal service, relatives located, etc.	31	57	88
Total number of visits	768	1,857	2,625
To patients on ward	109	213	322
To patients in community	180	622	802
To relatives of patients	318	676	994
To other agencies	161	346	507
School clinics:			
Histories taken	157	108	265
Boarding patients:			
Patients visited during the year	1	19	20
Patients placed during the year	1	9	10
Patients replaced during the year	—	—	—
Patients returned to hospital	—	4	4
Boarding homes investigated	—	5	5
Disposition of social cases:			
Cases discharged during the year	112	119	231
Cases to be continued	215	249	564
Cases closed	77	65	142
School clinic cases closed	157	108	265
Cases in care of other hospitals	16	—	16
Cases in care of other agencies	—	—	—
No action taken	—	—	—

The personnel of the social service department now consists of three paid workers, — a head social service worker and two assistants. During the greater part of the time we have also had the services of several students. This has enabled the social service department to cover a much wider field. The number of workers should, however, be increased and higher salaries rendered available.

## PATHOLOGICAL LABORATORY.

The routine work of the pathological laboratory may be summarized as follows: —

Autopsies . . . . .	89
Blood examinations:	
Cell count, red . . . . .	37
Cell count, white . . . . .	40
Cell count, differential . . . . .	35
Hemoglobin . . . . .	1
Cerebrospinal fluid examinations . . . . .	65
Cerebrospinal fluid examinations, post mortem . . . . .	1
Microscopic sections, number of cases . . . . .	39
Milk examinations:	
Bacteriological . . . . .	10
Butter fat . . . . .	11
Smears, autopsy . . . . .	15
Smears, miscellaneous . . . . .	26
Sputum examinations . . . . .	53
Urinalyses . . . . .	646
Vaccine, autogenous . . . . .	1
Wassermann reactions:	
Blood serum . . . . .	487
Cerebrospinal fluid . . . . .	75
Cerebrospinal fluid, post mortem . . . . .	3
Neurosyphilis treatments . . . . .	198
Number of cases treated . . . . .	21

The number of deaths in the hospital during the year was 259, of which 89 came to autopsy, making the autopsy percentage for the year 34.36.

The following table shows the psychoses represented in cases coming to autopsy: —

Traumatic psychosis . . . . .	1
Senile psychoses . . . . .	13
Psychoses with cerebral arteriosclerosis . . . . .	32
General paralysis . . . . .	19
Psychoses with other brain or nervous diseases . . . . .	4
Alcoholic psychosis . . . . .	1
Psychoses with other somatic diseases . . . . .	3
Manic-depressive psychoses . . . . .	2
Involution melancholia . . . . .	3

Dementia præcox . . . . .	8
Paranoia or paranoid conditions . . . . .	2
Epileptic psychosis . . . . .	1
<hr/>	
Total . . . . .	89

In the following table the causes of death of these cases are shown:—

Acute enterocolitis . . . . .	4
Bronchopneumonia . . . . .	9
Pulmonary tuberculosis . . . . .	8
General paralysis . . . . .	14
Lobar pneumonia . . . . .	5
Chronic myocarditis . . . . .	6
Caseous pneumonia . . . . .	1
Chronic interstitial pneumonia . . . . .	1
Arteriosclerosis . . . . .	15
Volvulus . . . . .	1
Empyema . . . . .	2
Chronic interstitial nephritis . . . . .	3
Cerebral hemorrhage . . . . .	3
Exhaustion from dementia præcox . . . . .	1
Acute purulent pericarditis . . . . .	1
Contracted kidney . . . . .	1
Acute cerebrospinal meningitis . . . . .	1
Erysipelas . . . . .	1
Acute diffuse peritonitis following spontaneous perforation of urinary bladder and necrosis . . . . .	1
Septicemia with gangrenous duodenum . . . . .	1
Status epilepticus . . . . .	1
Coronary sclerosis with occlusion . . . . .	1
Mitral stenosis . . . . .	1
Arteriosclerotic gangrene . . . . .	1
Acute bronchitis . . . . .	1
Tubercular peritonitis . . . . .	1
Acute infectious colitis . . . . .	1
Exhaustion from chronic gastritis . . . . .	1
Chronic enteritis . . . . .	1
Chronic interstitial myocarditis . . . . .	1
<hr/>	
Total . . . . .	89

#### DENTISTRY.

The dental work of the hospital has been carried on actively during the last year by the resident dentist, Dr. Lawrence H. Stone. The following is a summary of the work of this department:—



Abscesses treated . . . . .	92
Bridges . . . . .	5
Cleanings . . . . .	2,454
Crowns . . . . .	1
Examinations . . . . .	1,039
Fillings . . . . .	1,418
Inlays . . . . .	1
Miscellaneous . . . . .	96
Plates . . . . .	10
Plates repaired . . . . .	2
Roots extracted . . . . .	1,187
Teeth extracted . . . . .	1,132
Teeth treated . . . . .	43
Patients treated . . . . .	2,962

### HYDROTHERAPY.

The hydrotherapeutic work of the hospital has been carried on as usual in the East and West groups. Systematic instruction has been given to the members of the nurses' training school in this work, as well as attendants. The following hydriatric treatments were administered during the year: —

Wet sheet packs . . . . .	365
Salt glows . . . . .	154
Neutral saline baths . . . . .	152
Sitz baths . . . . .	24
Cabinet vapor baths . . . . .	46
Hot and cold to spine . . . . .	30
Swedish shampoos . . . . .	13
Tub shampoos . . . . .	276
Foot baths as preparatory treatments . . . . .	433
Needle sprays . . . . .	1,476
Fan douches . . . . .	422
Jet douches . . . . .	249
Fomentations . . . . .	3
Hot and cold to hand . . . . .	12

Nine hundred and ten packs were given during the year and 2,852 continuous baths, making the average daily number of packs 2.49, and the average daily number of continuous baths 7.80.

## TRAINING SCHOOL FOR NURSES.

The work of the training school for nurses has been carried on very successfully by the superintendent of nurses, Miss Mary Alice McMahon, R.N., during the year just ended. The affiliation of our school with that of the Boston City Hospital has been a very advantageous arrangement to us, each nurse spending twelve months at that institution acquiring a familiarity with general hospital work, which is a valuable supplement to the instruction given here. The graduating exercises of the training school for nurses were held on Wednesday evening, June 21, at the chapel in the East Group. The address of the evening was delivered by Dr. Henry Lefavour, chairman of the Board of Trustees, and the diplomas were presented to the graduating class by Mrs. Katherine G. Devine. The following nurses completed the prescribed course of instruction and received their diplomas on that occasion: Helene Margaret Bonner, Margaret Josephine Curran, Mary Dynan, Jean Hazel Miller, Margaret Gillispie MacArthur, Rebecca Catherine MacDaniel and Mary Magdelene MacKinnon. The junior class for 1922-23 consists of 4, the intermediate class of 10, and the senior class of 4. Nine are now receiving their instruction for the intermediate year at the Boston City Hospital. Ten graduates of our training school are now employed in the wards of the institution. The difficulty of maintaining successful training schools for nurses in the State hospitals has been increasing gradually. This is due, probably, to the fact that the work of a nurse in caring for psychiatric cases is more difficult in many ways than that of those in the general hospitals. One of the primary purposes of nurses' training schools is the instruction of employees who are to care for the patients in our wards. While it is desirable to graduate nurses who are qualified to care for psychiatric cases in the community, that is not the question of paramount interest to us. Unfortunately, we are unable to retain our graduates, who, as a rule, leave almost immediately on the completion of their course of instruction to accept much more remunerative positions in other services, or to take up general nursing, which offers much greater financial rewards. If the standards of our hospitals are to be maintained we must have more graduate nurses. To accomplish this it will be necessary to offer a higher rate of

pay to graduate and charge nurses. The systematic instruction of attendants, both male and female, is being carried on along the lines prescribed by the committee on training schools, representing the Department of Mental Diseases.

### OCCUPATIONS AND INDUSTRIES.

Occupational work has been materially extended in the ward service during the year, and we now have three occupational therapists on duty in the West Group and one in the East Group. This work at the present time is under the very efficient direction of Miss Frances E. Wood, who was for a number of years connected with the Devereux Mansion at Marblehead. It is hoped that several more workers can be added during the coming year, as the field cannot be covered properly by the number now employed. It has been found difficult to obtain occupational therapists at the rate of pay authorized, as better inducements are offered in other States. A systematic attempt has been made to interest in occupations of some kind as many patients in the wards as can be employed under existing circumstances, and who are unable for any reason to go to the industrial room. Occupational work has been carried on during the year in buildings A, B, C and D in the East Group, and buildings A, B, C and D in the West Group. This consists of basketry, rug making, weaving, lace making, embroidery, knitting, crocheting, sewing, mending, furniture repairing, woodwork, simple bookbinding, tin work, cord work and drawing. There is an average of about 21 patients occupied in the male wards daily, and about 187 in the female wards. An important feature of the ward work is the special effort made in the re-education of the deteriorated cases. This consists in a systematic course of instruction, which includes simple and graded exercises and games, and work such as raveling burlap, tearing rags, braiding rags, untangling bright colored wools, sorting bright colored wools, winding into balls, winding into skeins, cutting to a line, sewing pierced picture cards with bright colors, sewing rug strips, knitting and crocheting, plain sewing, fancy sewing and rug making, — all of these in regular progression. A permanent exhibit covering the work of the occupational and industrial therapy departments may be seen in the C building of the West Group.

The following summary of the articles produced by the occupational classes during the year will serve as an illustration of the various lines of activity in the daily routine in the wards:—

*Male Patients.*

Baskets . . . . .	131
Belts . . . . .	2
Book racks . . . . .	6
Boxwood furniture . . . . .	20
Cans painted . . . . .	48
Card files . . . . .	5
Chairs caned . . . . .	16
Checker boards . . . . .	21
Coat hangers . . . . .	158
Designs . . . . .	63
Desk blotters . . . . .	28
Desk files . . . . .	26
Fly swatters . . . . .	17
Index card sets . . . . .	3
Key cords . . . . .	359
Lamp shades . . . . .	5
Picture puzzles . . . . .	7
Rings for ring-toss . . . . .	60
Rugs woven . . . . .	53
Slippers . . . . .	6
Tie . . . . .	1
Toys . . . . .	50
Window wedges . . . . .	116
Woven runner . . . . .	1
Miscellaneous work:	
Furniture repairing.	
Raveling.	
Sandpapering.	
Sorting (string and reed).	
Spool knitting.	
Tags . . . . .	4,408

*Female Patients.*

Aprons . . . . .	10
Bags . . . . .	23
Bandages and dressings . . . . .	949
Baskets . . . . .	27
Bean bags . . . . .	19
Bed socks (pairs) . . . . .	159
Bibs . . . . .	3
Cleaning cloths, knitted . . . . .	72

Crocheting:	
Yokes . . . . .	21
Medallions . . . . .	9
Curtains (pairs) . . . . .	58
Doilies . . . . .	213
Door pads . . . . .	49
Drawings . . . . .	17
Dust cloths . . . . .	25
Face cloths . . . . .	503
Guest towels . . . . .	34
Hats . . . . .	62
Holders . . . . .	1,360
Hot-water bag covers . . . . .	7
Mittens (pairs) . . . . .	14
Napkins . . . . .	122
Penwipers . . . . .	5
Petticoats . . . . .	618
Pillow cases . . . . .	2,318
Pillow covers . . . . .	2
Pin cushions . . . . .	5
Quilt blocks . . . . .	258
Rugs . . . . .	70
Runners . . . . .	304
Sheets . . . . .	4,177
Stand covers . . . . .	26
Suspenders . . . . .	933
Towels . . . . .	4,463
Xmas bags . . . . .	1,454
Xmas cards . . . . .	20
Miscellaneous work:	
Crocheting lace (yards) . . . . .	76 $\frac{1}{4}$
Lace (yards) . . . . .	100
Mending:	
Garments . . . . .	190
Socks (pairs) . . . . .	711
Preparing rug material (pounds) . . . . .	789
Pulling threads.	
Raveling.	
Quilt blocks . . . . .	47
Spool knitting (yards) . . . . .	12,385 $\frac{1}{4}$
Straw braid for hats (yards) . . . . .	211
Worsted sorted and wound.	

The estimated value of articles produced in the wards during the year was \$1,431.25.

A new and highly important development during the year has been the establishment of an occupational center for mental

cases that have improved to such an extent as to warrant their leaving the hospital and taking up a residence in the community, in a place where they can be under competent supervision until they have succeeded in readjusting themselves to their environment and are able to return to their own homes or support themselves. The key to this process of readjustment would appear to be the resumption of occupational interests. With this object in view a community center was established at Hopkinton during the summer under the direction of Miss Donohoe, the head social service worker of the hospital. Competent occupational instruction has been provided for. It promises at this time to be a successful undertaking which may point the way to an entirely new line of treatment for mental cases. The work of this center, which has been officially designated "the occupational therapy center for mental patients," has been made possible by contributions from private sources.

Industrial work for women in the East Group consists of basketry, rug making, weaving, lace making, embroidery, knitting, crocheting, sewing, mending, etc. About 100 patients are occupied daily in the industrial rooms. The estimated value of the articles made in the East Group industrial room during the year was \$5,248.30. The industrial work for men is carried on entirely in the basement of Building B in the West Group. This work includes shoe repairing, the manufacture of various kinds of brushes, brooms, coat hangers, hats and various other articles. The value of articles produced during the year is estimated at \$12,831.45. The articles produced in the occupational and industrial departments of the hospital for the year represented a total valuation of \$19,511.

#### AGRICULTURAL ACTIVITIES OF THE YEAR.

The agricultural work of the institution has been carried on very efficiently during the past year under the direction of Mr. Lawrence Olsen. Owing to the number of employees available, the unfavorable weather, etc., the farm production for the year has not been as satisfactory as we had hoped it would be. There was a total of 145 acres under cultivation. This consisted of 26 acres devoted to field crops and 25 to gardening, in addition to which there were 89 acres of meadowland and 5 of

orchards and small fruits. The estimated value of farm products during the year was \$9,256.45.

I wish to call attention again to the question of purchasing a farm for the hospital. The hospital site consists of only 232 acres. The forty buildings belonging to the institution take up a large amount of this space and leave but comparatively little land for farming and gardening. It should be remembered that a considerable amount of land is necessary for the recreation of patients. The present development of the hospital does not leave much room available for farming, nor is it possible to purchase any more land in this vicinity at any reasonable cost. The report of the agricultural expert of the Department of Mental Diseases, as has been noted previously, shows that an institution of the size of the Boston State Hospital should cultivate approximately 700 acres of land. The advisability of purchasing several hundred acres of farm land within ready reach of the hospital is worthy of serious consideration. The per capita cost of maintenance would be materially lowered if a farm colony could be established and extensive agricultural work carried on at some place not too distant. The increasing number of buildings has reduced the amount of space available for gardening purposes. If we could establish a farm in the country, it would be possible for us to maintain a dairy, raise poultry and furnish garden products at a considerable saving. Farm and gardening activities cannot be carried on on a hospital site so limited in size and located, as this one is, in a large city.

#### FINANCIAL STATEMENT.

The Legislature made the following appropriations for new construction during the session of 1922: verandas, C building, East Group, \$8,000; verandas, G building, East Group, \$5,000; bakery building, \$36,000; addition to refrigerating plant, \$23,000.

The maintenance appropriation for the year was \$727,400. The maintenance expenditures of the hospital for the year were as follows:—

	Amount expended.	Per Capita.	Percentage of Total.
Personal services . . . . .	\$300,848 18	\$149.465	42.17
Travel, transportation and office expenses . .	9,480 56	4.710	1.33
Food . . . . .	169,597 95	84.258	23.77
Religious instruction . . . . .	2,080 00	1.033	.29
Clothing and materials . . . . .	27,324 38	13.575	3.85
Furnishings and household supplies . . . .	44,728 94	22.222	6.27
Medical and general care . . . . .	18,614 25	9.247	2.61
Heat, light and power . . . . .	74,852 57	37.187	10.49
Farm and stable . . . . .	7,755 69	3.853	1.08
Grounds . . . . .	9,977 60	4.957	1.39
Repairs, ordinary . . . . .	20,630 62	10.250	2.89
Repairs and renewals . . . . .	27,546 28	13.686	3.86
Total . . . . .	\$713,437 02	\$354.443	100.00

Based on the average daily population of the hospital (2,012.83), the per capita cost of maintenance for the year was \$354.44, or \$6.816 per week. The per capita cost for the year 1921 was \$406.76, or \$7.82 per week. Owing to the fact that the cost of commodities in general has not yet returned to normal, or at least to a pre-war basis, the cost of maintenance is still much higher than formerly. The fact that the hospital has a larger infirmary population and a greater number of bed patients than other institutions of this type is, of course, a factor of material importance. Our lack of agricultural facilities and the absence of a dairy mean a considerable increase in the cost of maintenance. The type of buildings erected heretofore has been a material factor in the cost of personal services as well as in the outlay necessary for repairs. The old buildings erected many years ago were made up of small units, few dormitories accommodating more than six patients, and consisting largely of single rooms. This necessitates a large amount of supervision and a number of ward employees that could be avoided just as well as not in certain buildings where custodial care only is required, and more patients can be housed in larger dormitories. No buildings designed exclusively for purely custodial patients in considerable numbers have ever been erected at this institution. The cost of maintaining the old buildings erected many years since by the city of Boston has, of course, been very high.



## GENERAL OPERATIONS FOR THE YEAR.

The East Group kitchen and dining-room building, which, as has been shown, was first occupied on March 18, 1921, has reached a very satisfactory state of efficiency. Each of the dining rooms on the upper floor accommodates 224 women, and there are accommodations for 112 men from the West Group in the dining room on the first floor. The nurses' dining room seats 64 and the employees' dining room 52.

The West Group kitchen and dining-room building, which was opened on Oct. 20, 1921, includes three dining rooms for men, seating 224 each, a nurses' dining room which accommodates 112, and a dining room for other employees which seats 44 persons.

The kitchens have been equipped with special insulated food containers which have made it possible to deliver food at all the other dining rooms and buildings in such a way that it can be served while still hot.

The reception rooms in both the East and West Group nurses' homes have been equipped with some very attractive furniture made in our own industrial rooms. Each nurse's room is furnished with waste paper baskets, rugs and other articles also made in our industrial departments.

The new verandas for the C and G buildings in the East Group were completed and ready for use in September, 1922, and have added a great deal to the efficiency of the buildings in question and contributed very much to the comfort of the patients, who are now afforded an ample opportunity for getting fresh air and a limited amount of exercise at all times.

The new bakery building, which is located in the rear of the storehouse in the East Group, was completed during the month of September. It is 100 by 42 feet in size, and includes three Petersen ovens of the latest model, a space for flour storage, a proving room, bread room, refrigerator, lockers for the clothing of the employees working in the building, shower baths, etc. The equipment also includes the latest type of dough and cake mixers.

An addition to the power house, which will furnish space for a new ice plant and the necessary refrigerating machinery, was completed in September, 1922. The equipment was being installed as the fiscal year ended. Metal lockers for the use of the firemen have been installed in the boiler house.

The completion of the kitchen and dining-room building in the West Group has made it possible to remodel the basement of the administration building in that group. A new and very satisfactory staff kitchen has been arranged for at that place.

The two-story addition to the laundry building, for which money was appropriated last year, was completed during the summer months. A new washer, a drying tumbler and a flat-work ironer have been purchased and will be installed shortly. This addition to the laundry building will furnish us with new receiving and sorting rooms 28 by 35 feet in size. This will make it possible to devote the two rooms in the old laundry building to washing, drying and ironing exclusively. The new machinery installed will be operated on an alternating instead of a direct current as before.

The new construction of the last few years has left us with a large amount of grading to be done. It will not be possible for us to complete this work for some time, although much progress has been made. The landscape work made necessary by the filling in of the old pond in the East Group has been pushed as rapidly as possible, and we hope to have it completed in the early part of next year. The grading and landscape work in the neighborhood of the nurses' home has been practically completed, and we have made good progress on the grading around the kitchen and dining room in the East Group.

The East Group nurses' home has been connected with the neighboring buildings by a cement walk.

The work of filling in the site between Morton Street and the power house, storehouse, etc., in the East Group has been carried on as rapidly as possible during the summer, and should be finished next year.

It has been necessary to install a new tar and gravel roof on the mortuary building in the East Group.

The old wooden shingle roof on the administration building in the East Group was removed during the summer and replaced by asphalt shingles. The new asphalt shingle roof on the chapel and the adjoining corridors in the East Group was completed in July.

The old greenhouses in the East Group, which were in a very dilapidated state and almost ready to fall down, were thoroughly overhauled and repaired during the summer.

The East B building was equipped with fly screens during the year.

The E building and the lower floor of the F building in the East Group have been repainted.

Owing to the necessity of a new ceiling in Ward 1 of the East G building, Ward F-1 was opened in September as a temporary reception ward for women.

Work on the new ceiling in the G building referred to above was practically completed at the end of the year.

A mezzanine floor has been built in the East Group storehouse which has practically doubled the capacity of that place.

The East Group kitchen was painted for the first time during the summer. A stairway connecting the scullery in the East Group kitchen building with the basement beneath it was finished recently. This will make it possible for us to practically double the scullery space in the building in the near future.

The branch of Stony Brook running from the Forest Hills Cemetery across Canterbury Street and through part of the hospital property in the West Group was partially enclosed in a 30-inch Akron pipe conduit during the summer. This will make it possible for us to do some much needed grading and filling later.

The east wing of the B building in the West Group was repainted during the year, as well as the rooms and corridors of the administrative section of that building.

A new asphalt shingle roof on the C and D buildings in the West Group, together with the connecting corridors, was completed during the summer months.

All the equipment necessary was purchased for the operating room in the F building in the West Group and installed in September.

The 6-inch steam line running from the G building in the West Group, in the rear of the F building, to the E cottages was reinsulated during the summer with 8-inch magnesia pipe covering. This practically completes the reinsulation of the West Group steam lines.

The old congregate dining room in the rear of Building F in the West Group was thoroughly renovated and repainted during the year and was opened in October as an employees' club house. This is something which has been very badly needed for

years, but we have heretofore had no space available for such purposes. An employees' club has been organized and a great deal of interest and enthusiasm has been shown by the nurses and attendants. Several entertainments have been given and a considerable amount of money raised by the employees to be expended in the equipment of the building. We are indebted to some unknown donor who presented the hospital with a grand piano during the summer. This is a gift which has been very highly appreciated. We regret not being able to personally express our appreciation to those who were thoughtful enough to remember us in this way.

The Lieutenant Governor and five members of the Executive Council visited the hospital on February 15 and made a very thorough inspection of various wards and buildings.

Col. John F. J. Herbert and Mr. Powers, representing the Veterans' Bureau, also visited the hospital on March 8 and personally interviewed practically all of the ex-service men in the institution.

The usual visits have been made during the year by representatives of the Department of Mental Diseases and the legislative committee on public institutions.

The annual field day exercises of the hospital were held on the baseball grounds in the West Group on July 11, and were thoroughly appreciated by the patients, many of whom participated in the various events. We are indebted to the Jewish Home on Canterbury Street for the excellent music furnished on that occasion.

Attention should be called again to the desirability of acquiring the 150,000 square feet of land belonging to the Forest Hills Cemetery and located south of Canterbury Street, adjoining the West Group. This is the only part of the site bounded by Canterbury Street on the north, Harvard Street on the south, Morton Street on the east, and Walk Hill Street on the west that has not as yet been acquired by the State. The buildings on this land could be used to very good advantage and would facilitate the removal of the barns and other objectionable structures adjoining the administration building in the East Group. The desirability of acquiring this land was referred to by the joint special legislative committee on public institutions in their report of March, 1920, as shown in Senate Document No. 450.

Further reference should be made at this time to the Canterbury branch of Stony Brook. Although the channel of this brook was cleaned out by the city three years ago, it is already overgrown with weeds and is as badly obstructed as ever. The brook not infrequently overflows its banks, and from 30 to 40 acres of hospital land have been covered with water at times. It occasionally gets into the steam conduits, and has flooded the pump room of the power house to a depth of a foot and a half. Such an overflow may at any time render it impossible to provide heat for the West Group, which now has a capacity of over 1,500 beds. This condition of affairs should be remedied as soon as possible. The conduit built by the city extends to the point where the brook enters the hospital property on Harvard Street. The brook runs through the grounds for a distance of approximately 4,500 feet. The conduit should be extended for at least 2,200 feet to the point where the hospital road crosses the brook in the West Group. This would reclaim 30 or 40 acres of valuable land, worth approximately \$260,000. The work of enclosing this brook as originally undertaken by the city is incomplete, and the present condition was intended only as a temporary arrangement. The joint special committee of the Legislature reporting on public institutions in 1920 referred to this as a serious matter requiring immediate attention.

#### NEEDS OF THE HOSPITAL FOR THE COMING YEAR.

The following items relating to construction deemed necessary for the coming year were submitted some time since to the Department of Mental Diseases: —

1. Administration building and staff quarters . . . . .	\$160,000
2. Superintendent's house . . . . .	20,000
3. Addition to garage . . . . .	2,950
4. Extension to sewer, water and steam lines . . . . .	12,000
5. Cottage for twenty farm employees . . . . .	26,000
6. Concrete platform for coal storage . . . . .	5,000
7. New greenhouse . . . . .	1,570
8. Concrete pavement in front of power house . . . . .	9,000
	<hr/>
	\$236,520

1. *Administration Building and Staff Quarters.* — The offices of the institution are now located in an old building purchased by the city of Boston about fifty years ago for use as an alms-

house. This is a two and one-half story building constructed of wood throughout, contains numerous exposed electric wires, and has several wooden stairways running from the basement to the attic. This building is located within 50 yards of a large wooden barn containing hay, and is surrounded by other non-fireproof structures, the nearest being the chapel and a building occupied by patients. Its presence in this location is a serious menace, and in case of fire would threaten the loss of the entire East Group. The building now houses over 50 employees, 30 of whom are living in the attic. The offices of the hospital should be in a central location. It is very inconvenient for relatives and friends of the patients to come from Walk Hill Street to the present administration building. The hospital has now reached a stage of development where an administration building is urgently needed. We do not propose to demolish the old wooden building now used for office purposes, but suggest removing it to other locations where it can be remodeled and used for housing employees, etc. In erecting an administration building we propose to provide additional accommodations for the staff on the second floor. Attention should be called to the fact that no new construction has ever been provided at the institution as yet for the exclusive use of the medical officers of the hospital.

2. *Superintendent's House.* — No superintendent's residence has ever been built at the hospital. The only house used for that purpose was the remodeled Pierce farmhouse, acquired by the city in 1893. This building is now being used for other purposes. The arrangement of the building is not such as to render it suitable for a superintendent's residence. It has been necessary for the Board of Trustees to rent a house for the superintendent. The lease on this house will expire by the time a building can be erected on the hospital premises. The annual outlay involved in this rental, including heat, light, etc., represents the interest on a considerable investment. The cost may be increased at the expiration of the present lease.

3. *Addition to Garage.* — No garage has ever been built for the hospital. We are using the old West Group boiler house, remodeled for this purpose, at the present time. It is, however, not large enough, and additional space is badly needed.

4. *Extension to Sewer, Water and Steam Lines.* — When a new administration building is erected an extension to the sewer,

water and steam lines of the institution will be necessary. Provision should be made for this at as early a moment as possible. When completed, this extension will also provide for several other buildings.

5. *Cottage for Twenty Farm Employees.* — Attention has already been called to the necessity of further provision for the housing of farm employees. The building now used for this purpose in the West Group is one which has been in constant use since 1904. It has been remodeled throughout on several occasions and cannot be repaired further to good advantage. The building inspectors of the district police have refused to certify it for occupancy, and it should be replaced at the earliest possible moment.

6. *Concrete Platform for Coal Storage.* — The recommendations of the consulting engineers representing the Department of Mental Diseases show that we should be able to take care of at least 6,000 tons of coal at one time. At present this is done by spreading the coal over a large space near the power house. This land is low and is frequently overflowed by water from the Canterbury branch of Stony Brook. A considerable loss would be prevented by storing this coal on a cement platform (20,000 square feet).

7. *New Greenhouse.* — The old greenhouse in the rear of the present administration building in the East Group is in a very undesirable location, as well as being inadequate to the needs of the institution. It should be replaced by a new and modern building in a different place.

8. *Concrete Pavement in Front of Power House.* — There is a granite block pavement in front of the laundry at the present time. This is not laid in cement and will have to be taken up soon. When relaid, this should be extended to the front of the power house and carried as far as the storehouse. The heavy trucks now delivering coal to the power house render the installation of some kind of a serviceable pavement necessary. The cheapest pavement available will be concrete, at an estimated cost of \$9,000.

Respectfully submitted,

JAMES V. MAY,  
*Superintendent.*

## VALUATION.

Nov. 30, 1922.

## REAL ESTATE.

Land (233 acres) . . . . .	\$576,680 00
Buildings . . . . .	2,688,195 20
	<hr/>
	\$3,264,875 20

## PERSONAL PROPERTY.

Travel, transportation and office supplies . . . . .	—
Food . . . . .	\$15,783 71
Clothing and materials . . . . .	23,390 94
Furnishings and household supplies . . . . .	217,070 73
Medical and general care . . . . .	1,775 13
Heat, light and power . . . . .	34,843 48
Farm . . . . .	14,465 75
Garage, stable and grounds . . . . .	3,366 20
Repairs . . . . .	7,572 17
	<hr/>
	\$318,268 11

## SUMMARY.

Real estate . . . . .	\$3,264,875 20
Personal property . . . . .	318,268 11
	<hr/>
	\$3,583,143 31



## TREASURER'S REPORT.

*To the Commissioner of the Department of Mental Diseases.*

I respectfully submit the following report of the finances of this institution for the fiscal year ending Nov. 30, 1922: —

### CASH ACCOUNT.

Balance Dec. 1, 1921 . . . . .	\$3,006 74
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### *Receipts.*

#### *Income.*

#### Board of inmates:

Private . . . . .	\$30,224 70	
Reimbursements, insane . . . . .	49,628 09	
		\$79,852 79

#### Personal services:

Reimbursement from Board of Retirement . . . . .	175 47
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#### Sales:

Travel, transportation and office ex-		
penses . . . . .	\$104 76	
Food . . . . .	665 19	
Clothing and materials . . . . .	46 68	
Furnishings and household supplies . . . . .	56 25	
Heat, light and power . . . . .	93 69	
Farm:		
Pigs and hogs . . . . .	\$117 35	
Hay . . . . .	375 00	
Sundries . . . . .	3 75	
		496 10
Repairs, ordinary . . . . .	9 75	
Repairs and renewals . . . . .	18 76	
		1,491 18

#### Miscellaneous:

Interest on bank balances . . . . .	\$657 38	
Interest on patients' funds . . . . .	143 79	
		801 17

82,320 61

### *Receipts from Treasury of Commonwealth.*

#### Maintenance appropriations:

Balance of 1921 . . . . .	\$23,366 39	
Advance money (amount on hand November 30) . . . . .	55,400 00	
Approved schedules of 1922 . . . . .	640,099 07	
		718,865 46

#### Special appropriations:

Balance of 1921 . . . . .	\$6,121 66	
Approved schedules of 1922 . . . . .	48,463 28	
		54,584 94

Total . . . . .	\$858,777 75
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\$800 received by Department of Mental Diseases and paid by them direct to the Treasurer of the Commonwealth.

*Payments.*

To treasury of Commonwealth:		
Institution income . . . . .	\$82,320 61	
Refunds, account of maintenance . . . . .	24 54	
	<hr/>	\$82,345 15
Maintenance appropriations:		
Balance of schedules of previous year . . . . .	\$26,373 13	
Approved schedules of 1922 . . . . .	\$640,099 07	
Less returned . . . . .	24 54	
	<hr/>	640,074 53
November advances . . . . .	31,142 29	
	<hr/>	697,589 95
Special appropriations:		
Balance of schedules of previous year . . . . .	\$6,121 66	
Approved schedules of 1922 . . . . .	48,463 28	
	<hr/>	54,584 94
Balance Nov. 30, 1922:		
In bank . . . . .	\$23,380 49	
In office . . . . .	877 22	
	<hr/>	24,257 71
	<hr/>	
Total . . . . .		\$858,777 75

## MAINTENANCE.

Balance from previous year, brought forward . . . . .	\$7 27
Appropriation, current year . . . . .	727,400 00
	<hr/>
Total . . . . .	\$727,407 27
Expenses (as analyzed below) . . . . .	713,437 02
	<hr/>
Balance reverting to treasury of Commonwealth . . . . .	\$13,970 25

*Analysis of Expenses.*

Personal services . . . . .	\$300,848 18
Religious instruction . . . . .	2,080 00
Travel, transportation and office expenses . . . . .	9,480 56
Food . . . . .	169,597 95
Clothing and materials . . . . .	27,324 38
Furnishings and household supplies . . . . .	44,728 94
Medical and general care . . . . .	18,614 25
Heat, light and power . . . . .	74,852 57
Farm . . . . .	7,755 69
Garage, stable and grounds . . . . .	9,977 60
Repairs, ordinary . . . . .	20,630 62
Repairs and renewals . . . . .	27,546 28
	<hr/>
Total expenses for maintenance . . . . .	\$713,437 02

## SPECIAL APPROPRIATIONS.

Balance Dec. 1, 1921 . . . . .	\$24,754 01
Appropriations for current year . . . . .	72,000 00
	<hr/>
Total . . . . .	\$96,754 01
Expended during the year (see statement below) . . . . .	54,643 62
	<hr/>
Balance Nov. 30, 1922, carried to next year . . . . .	\$42,110 39

ОБЪЕКТ.	Act or Resolve.	Whole Amount.	Expended during Fiscal Year.	Total expended to Date.	Balance at End of Year.
Male infirmary . . . . .	1918, Chap. 50 1920, Chap. 629 1921, Chap. 203 1919, Chap. 211 1920, Chap. 225 1920, Chap. 629 1921, Chap. 203 1919, Chap. 211 1920, Chap. 629 1919, Chap. 211 1920, Chap. 225 1920, Chap. 629 1921, Chap. 203 1921, Chap. 203 1921, Chap. 203 1922, Chap. 129 1922, Chap. 129 1922, Chap. 129 1922, Chap. 129	\$404,595 80	-	\$400,618 60	\$3,977 20
Home for 90 nurses . . . . .		152,700 00	\$1,475 93	151,230 55	1,469 45
Dining room, East Group . . . . .		152,000 00	-	150,579 32	1,420 68
Dining room, West Group . . . . .		224,100 00	1,846 72	223,086 04	1,013 96
Laundry . . . . .		15,000 00	1,357 57	4,561 98	10,438 02
Sewer line . . . . .		5,000 00	802 01	4,047 53	952 47
Veranda C . . . . .		8,000 00	6,754 10	6,754 10	1,245 90
Veranda G . . . . .		5,000 00	4,109 00	4,109 00	891 00
Addition to bakery . . . . .		36,000 00	31,654 37	31,654 37	4,345 63
Addition to refrigerating room . . . . .		23,000 00	6,643 92	6,643 92	16,356 08
		\$1,025,395 80	\$54,643 62	\$983,285 41	\$42,110 39

## RESOURCES AND LIABILITIES.

*Resources.*

Cash on hand . . . . .	\$24,257 71	
November cash vouchers (paid from advance money), account of maintenance . . . . .	31,142 29	
		<hr/>
		\$55,400 00
Due from treasury of Commonwealth:		
From available appropriation, account of November, 1922, schedule	17,962 49	
Special appropriation . . . . .	6,180 34	
		<hr/>
		\$79,542 83

*Liabilities.*

Outstanding schedules of current year:		
Schedule of November bills . . . . .	\$73,362 49	
Special appropriation . . . . .	6,180 34	
		<hr/>
		\$79,542 83

## PER CAPITA.

During the year the average number of inmates has been 2,012.83.  
 Total cost for maintenance, \$713,437.02.  
 Equal to a weekly per capita cost of \$6.8162.  
 Receipt from sales, \$1,491.18.  
 Equal to a weekly per capita of \$0.0142.  
 All other institution receipts, \$80,829.43.  
 Equal to a weekly per capita of \$0.7722.  
 Net weekly per capita cost, \$6.0298.

Respectfully submitted,

ADELINE J. LEARY,  
*Treasurer.*

Examined and found correct as compared with the records in the office of the Auditor of the Commonwealth.

ALONZO B. COOK,  
*Auditor.*

# STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION.

PRESCRIBED BY MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES.

TABLE 1. — *General Information.*

1. Date of opening as an institution for the insane: Dec. 11, 1839.
2. Type of institution: State since Dec. 1, 1908.
3. Hospital plant:
Value of hospital property:
Real estate, including buildings . . . . . \$3,264,875 20
Personal property . . . . . 318,268 11
Total . . . . . \$3,583,143 31

Total acreage of hospital property owned, 233.

Total acreage under cultivation during previous year, 145.

	ACTUALLY IN SERVICE AT END OF YEAR.			VACANCIES AT END OF YEAR.		
	Males.	Fe- males.	Totals.	Males.	Fe- males.	Totals.
4. Officers and employees:						
Superintendents . . . . .	1	—	1	—	—	—
Assistant superintendent . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	4	4	8	3	—	3
Pathologist . . . . .	—	—	—	1	—	1
Medical internes . . . . .	—	—	—	—	—	—
Clinical assistants . . . . .	—	—	—	—	—	—
Total physicians . . . . .	6	4	10	4	—	4
Stewards . . . . .	1	—	1	—	—	—
Resident dentists . . . . .	1	—	1	—	—	—
Graduate nurses . . . . .	—	19	19	5	23	28
Other nurses and attendants . . . . .	105	104	209			
Teachers of occupational therapy . . . . .	1	4	5	—	—	—
Social workers . . . . .	—	3	3	—	—	—
All other officers and employees . . . . .	81	73	154	—	—	—
Total officers and employees . . . . .	189	203	392	5	23	28
Grand total . . . . .	195	207	402	9	23	32

TABLE 1. — *General Information* — Concluded.

	ACTUALLY IN IN-STITUTION.			ABSENT FROM INSTITUTION BUT STILL ON BOOKS.		
	Males.	Fe- males.	Totals.	Males.	Fe- males.	Totals.
5. Census of patient population at end of year:						
White:						
Insane . . . . .	891	1,117	2,008	106	181	287
Epileptics . . . . .	—	—	—	—	—	—
Mental defectives . . . . .	—	—	—	—	—	—
Alcoholics . . . . .	—	—	—	—	—	—
Drug addicts . . . . .	—	—	—	—	—	—
Neurosyphilitics (without psy- chosis) . . . . .	—	—	—	—	—	—
All other cases . . . . .	—	—	—	—	—	—
Total . . . . .	891	1,117	2,008	106	181	287
Colored:						
Insane . . . . .	23	27	50	2	4	6
Epileptics . . . . .	—	—	—	—	—	—
Mental defectives . . . . .	—	—	—	—	—	—
Alcoholics . . . . .	—	—	—	—	—	—
Drug addicts . . . . .	—	—	—	—	—	—
Neurosyphilitics (without psy- chosis) . . . . .	—	—	—	—	—	—
All other cases . . . . .	—	—	—	—	—	—
Total . . . . .	23	27	50	2	4	6
Grand total . . . . .	914	1,144	2,058	108	185	293
6. Patients employed in industrial classes or in general hospital work on date of re- port . . . . .		Males.	Females.	Totals.		
		480	480	960		
7. Average daily number of all patients actually in institution during year . . . . .	886.41	1,091.96	1,978.37			
8. Voluntary patients admitted during year . . . . .	4	6	10			
9. Persons given advice or treatment in out- patient clinics during year . . . . .	—	—	—			

TABLE 2. — *Financial Statement.*

See treasurer's report for data requested under this table.

TABLE 3. — *Movement of Population for the Year ending Sept. 30, 1922.*

	INSANE.			TEMPORARY CARE.			TOTAL.	
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.
Patients on books at beginning of institution year . . . . .	974	1,240	2,214	-	3	3	974	1,243
Admissions during the year:								
First admissions (including 3 women committed from temporary care of the preceding year).	235	244	479	8	5	13	243	249
Readmissions . . . . .	59	59	118	9	4	13	68	63
Transferred from other institutions for mental diseases . . . . .	10	19	29	-	-	-	10	19
Total received during the year . . . . .	304	322	626	17	9	26	321	331
Total under treatment during year . . . . .	1,278	1,562	2,840	17	12	29	1,295	1,574
Discharged from books during the year:								
As recovered . . . . .	39	37	76	4	-	4	43	37
As improved . . . . .	54	54	108	-	1	1	54	55
As unimproved . . . . .	12	18	30	2	6	8	14	24
As without psychosis . . . . .	3	-	3	5	1	6	8	1
Died during the year . . . . .	142	113	255	4	-	4	146	113
Transferred to other institutions for mental diseases . . . . .	8	11	19	-	1	1	8	12
Committed from temporary care . . . . .	-	-	-	-	3	3	-	-
Total discharged and died . . . . .	258	233	491	15	12	27	273	245
Patients remaining on books at end of institution year . . . . .	1,020	1,329	2,349	2	-	2	1,022	1,329

TABLE 4. — *Nativity of First Admissions and of Parents of First Admissions for the Year ending Sept. 30, 1922.*

NATIVITY.	PATIENTS.			PARENTS OF MALE PATIENTS.			PARENTS OF FEMALE PATIENTS.		
	Males.	Females.	Totals.	Fathers.	Mothers.	Both Parents.	Fathers.	Mothers.	Both Parents.
United States . . . . .	117	113	230	43	37	30	50	48	40
Australia . . . . .	—	1	1	—	—	—	—	—	—
Austria . . . . .	3	1	4	2	2	—	—	—	—
Canada <sup>1</sup> . . . . .	20	27	47	16	15	11	16	19	15
Denmark . . . . .	—	1	1	—	—	—	2	1	1
England . . . . .	5	4	9	6	5	4	11	6	5
Europe <sup>2</sup> . . . . .	—	2	2	—	—	—	4	4	4
Finland . . . . .	—	—	—	—	—	—	—	1	—
France . . . . .	2	2	4	2	1	1	3	2	2
Germany . . . . .	5	3	8	8	7	7	4	3	3
Holland . . . . .	2	—	2	2	2	2	—	—	—
Ireland . . . . .	34	58	92	59	59	55	87	86	81
Italy . . . . .	14	9	23	18	18	18	12	11	11
Jugo-Slavia . . . . .	3	—	3	3	3	3	—	—	—
Norway . . . . .	—	1	1	1	1	1	1	1	1
Poland . . . . .	1	3	4	1	1	1	5	5	5
Portugal . . . . .	3	—	3	2	2	2	—	—	—
Roumania . . . . .	—	—	—	1	1	1	—	—	—
Russia . . . . .	14	15	29	18	17	17	16	16	16
Scotland . . . . .	1	1	2	2	3	2	1	3	1
Spain . . . . .	—	—	—	1	—	—	—	—	—
Sweden . . . . .	5	2	7	6	5	5	4	3	3
Turkey in Asia . . . . .	1	—	1	1	1	1	1	1	1
Turkey in Europe . . . . .	1	—	1	1	1	1	—	—	—
West Indies <sup>3</sup> . . . . .	1	—	1	1	1	1	—	—	—
Unascertained . . . . .	3	1	4	41	53	41	27	34	27
Total . . . . .	235	244	479	235	235	206	244	244	216

<sup>1</sup> Includes Newfoundland.<sup>2</sup> Not otherwise specified.<sup>3</sup> Except Cuba and Porto Rico.TABLE 5. — *Citizenship of First Admissions for the Year ending Sept. 30, 1922.*

	Males.	Females.	Totals.
Citizens by birth . . . . .	117	113	230
Citizens by naturalization . . . . .	56	41	97
Aliens . . . . .	43	73	116
Citizenship unascertained . . . . .	19	17	36
Total . . . . .	235	244	479



TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1922.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	.	.	.	3	-	3
2. Senile, total . . . . .	17	14	31	25	34	59
(a) Simple deterioration . . . . .	1	2	3			
(b) Presbyophrenic type . . . . .	-	-	-			
(c) Delirious and confused states . . . . .	1	10	11			
(d) Depressed and agitated states in addition to deterioration . . . . .	3	6	9			
(e) Paranoid states in addition to deterioration . . . . .	3	2	5			
(f) Presenile types . . . . .	.	.	.			
3. With cerebral arteriosclerosis . . . . .	.	.	.	39	46	85
4. General paralysis . . . . .	.	.	.	40	9	49
5. With cerebral syphilis . . . . .	.	.	.	-	2	2
6. With Huntington's chorea . . . . .	.	.	.	1	-	1
7. With brain tumor . . . . .	.	.	.	-	1	1
8. With other brain or nervous diseases, total . . . . .	.	.	.	2	4	6
(a) Cerebral embolism . . . . .	-	1	1			
(b) Paralysis agitans . . . . .	1	-	1			
(c) Meningitis, tubercular or other forms . . . . .	1	-	1			
(d) Multiple sclerosis . . . . .	-	-	-			
(e) Tabes dorsalis . . . . .	-	-	-			
(f) Acute chorea . . . . .	-	-	-			
(g) Other diseases . . . . .	-	3	3			
9. Alcoholic, total . . . . .	.	.	.	31	14	45
(a) Pathological intoxication . . . . .	5	1	6			
(b) Delirium tremens . . . . .	-	-	-			
(c) Acute hallucinosis . . . . .	6	5	11			
(d) Acute paranoid type . . . . .	4	1	5			
(e) Korsakow's psychosis . . . . .	-	2	2			
(f) Chronic hallucinosis . . . . .	5	2	7			
(g) Chronic paranoid type . . . . .	7	1	8			
(h) Alcoholic deterioration . . . . .	4	2	6			
(i) Other types, acute or chronic . . . . .	-	-	-			
10. Due to drugs and other exogenous toxins . . . . .	.	.	.	-	-	-
11. With pellagra . . . . .	.	.	.	-	1	1
12. With other somatic diseases, total . . . . .	.	.	.	4	11	15
(a) Delirium with infectious diseases . . . . .	-	-	-			
(b) Post-infectious psychosis . . . . .	-	1	1			
(c) Exhaustion delirium . . . . .	-	2	2			
(d) Delirium of unknown origin . . . . .	-	1	1			
(e) Cardiorenal diseases . . . . .	3	-	3			
(f) Diseases of the ductless glands . . . . .	-	-	-			
(g) Other diseases or conditions . . . . .	1	7	8			
13. Manic-depressive, total . . . . .	.	.	.	11	40	51
(a) Manic type . . . . .	8	18	26			
(b) Depressive type . . . . .	2	21	23			
(c) Stupor . . . . .	-	-	-			
(d) Mixed type . . . . .	1	1	2			
(e) Circular type . . . . .	-	-	-			
14. Involution melancholia . . . . .	.	.	.	8	5	13

TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1922* — Concluded.

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
15. Dementia praecox, total . . . . .	43	33	76			
(a) Paranoid type . . . . .	24	17	41			
(b) Catatonic type . . . . .	12	7	19			
(c) Hebephrenic type . . . . .	6	6	12			
(d) Simple type . . . . .	1	3	4			
16. Paranoia and paranoid conditions . . . . .	3	24	27			
17. Epileptic, total . . . . .	3	1	4			
(a) Deterioration . . . . .	—	—	—			
(b) Clouded states . . . . .	3	1	4			
(c) Other conditions . . . . .	—	—	—			
18. Psychoneuroses and neuroses, total . . . . .	3	—	3			
(a) Hysterical type . . . . .	—	—	—			
(b) Psychasthenic type . . . . .	1	—	1			
(c) Neurasthenic type . . . . .	2	—	2			
(d) Anxiety neuroses . . . . .	—	—	—			
19. With psychopathic personality . . . . .	2	2	4			
20. With mental deficiency . . . . .	8	7	15			
21. Undiagnosed . . . . .	9	4	13			
22. Without psychosis, total . . . . .	—	6	6			
(a) Epilepsy without psychosis . . . . .	—	—	—			
(b) Alcoholism without psychosis . . . . .	—	—	—			
(c) Drug addiction without psychosis . . . . .	—	—	—			
(d) Psychopathic personality without psychosis . . . . .	—	—	—			
(e) Mental deficiency without psychosis . . . . .	—	6	6			
(f) Others . . . . .	—	—	—			
Total . . . . .	235	244	479			



TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1922* — Continued.

RACE.	PSYCHOSES.																				
	WITH OTHER BRAIN OR NERVOUS DISEASES.			ALCOHOLIC.			WITH PELLAGRA.			WITH OTHER SOMATIC DISEASES.			MANIC- DEPRESSIVE.			INVOLUTION MELANCHOLIA.			DEMENTIA PRAECOX.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
African (black)	1	2	3	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	3	1	4
Armenian	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Dutch and Flemish	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
English	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
French	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
German	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Hebrew	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Irish	16	8	24	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	14	4	18
Italian 1	1	2	3	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Lithuanian	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Magyar	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Portuguese	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Scandinavian 2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Scotch	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Slavonic 3	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Spanish	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Syrian	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Mixed	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Race unascertained	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Total .	2	4	6	31	14	45	1	1	2	4	11	15	11	40	51	8	5	13	43	33	76

Includes "North" and "South."

<sup>2</sup> Norwegians, Danes and Swedes.

<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1922 — Concluded.*

RACE.	PSYCHOSES.																				
	PARANOIA AND PARANOID CONDITIONS.			EPILEPTIC.			PSYCHONEUROSES AND NEUROSES.			WITH PSYCHOPATHIC PERSONALITY.			WITH MENTAL DEFICIENCY.			UNDIAGNOSED.			WITHOUT.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
African (black)	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Armenian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
French	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Irish	1	15	16	-	-	-	-	1	2	3	-	-	-	-	-	3	1	4	-	-	-
Italian	1	1	2	-	-	-	-	1	1	2	-	-	-	-	-	2	1	3	-	-	-
Lithuanian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Nagyar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian	-	4	4	-	-	-	-	1	1	2	-	-	-	-	-	1	-	1	-	-	-
Scotch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Spanish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Mixed	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	4	1	5	-	-	-
Race unascertained	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	3	24	27	3	1	4	3	-	3	2	4	8	7	15	9	4	13	-	6	6	6

Includes "North" and "South."

<sup>2</sup> Norwegians, Danes and Swedes.

Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 8. — Age of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1922.

PSYCHOSES.	TOTAL.			YEARS.																				
	Males.	Females.	Totals.	UNDER 15.			15-19.			20-24.			25-29.			30-34.			35-39.			40-44.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.			
1. Traumatic . . . . .	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2. Senile . . . . .	25	34	59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3. With cerebral arteriosclerosis . . . . .	39	46	85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
4. General paralysis . . . . .	40	9	49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5. With cerebral syphilis . . . . .	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6. With Huntington's chorea . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7. With brain tumor . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
8. With other brain or nervous diseases . . . . .	2	4	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9. Alcoholic . . . . .	31	14	45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
11. With pellagra . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12. With other somatic diseases . . . . .	4	11	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
13. Manic-depressive . . . . .	11	40	51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14. Involution melancholia . . . . .	8	5	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15. Dementia praecox . . . . .	43	33	76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
16. Paranoia or paranoid conditions . . . . .	3	24	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
17. Epileptic . . . . .	3	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
18. Psychoneuroses and neuroses . . . . .	3	3	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
19. With psychopathic personality . . . . .	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
20. With mental deficiency . . . . .	8	7	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
21. Undiagnosed . . . . .	—	4	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
22. Without psychosis . . . . .	9	6	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total . . . . .	235	244	479	1	1	2	8	7	15	18	20	38	21	16	37	19	12	31	17	28	45	14	17	31

TABLE 8. — *Age of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1922 — Concluded.*

Psychoses.	YEARS.											
	45-49.			50-54.			55-59.			60-64.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	—	1	1	1	4	5	1	1	2	1	6	7
2. Senile . . . . .	—	1	1	1	3	4	1	1	2	1	3	4
3. With cerebral arteriosclerosis . . . . .	—	—	—	1	1	2	1	2	3	1	9	10
4. General paralysis . . . . .	11	—	11	5	1	6	7	2	9	16	21	37
5. With cerebral syphilis . . . . .	—	2	2	2	3	5	7	2	9	7	33	40
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	1	1	2	—	—	—	—	1	1
9. Alcoholic . . . . .	9	3	12	9	2	11	2	1	3	1	1	2
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive . . . . .	—	3	3	2	4	6	1	4	5	1	2	3
14. Involution melancholia . . . . .	—	—	—	3	2	5	5	2	7	—	1	1
15. Dementia precox . . . . .	1	—	1	3	3	6	5	2	7	—	1	1
16. Paranoia or paranoid conditions . . . . .	—	3	3	1	8	9	1	4	5	1	1	2
17. Epileptic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	—	—	1	1	2	—	—	—	—	—	—
21. Undiagnosed . . . . .	1	1	2	1	1	2	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	22	13	35	26	26	52	26	18	44	17	57	81
										24	1	1

Total

TABLE 9. — Degree of Education of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1922.

PSYCHOSES.	TOTAL.			ILLITERATE.			READS AND WRITES. <sup>1</sup>			COMMON SCHOOL.			HIGH SCHOOL.			COLLEGE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	3	—	3	—	—	—	1	—	1	2	—	2	—	—	2	—	—	—	—	—	—
2. Senile . . . . .	25	34	59	3	4	7	6	12	18	12	11	23	—	—	—	1	—	—	3	5	8
3. With cerebral arteriosclerosis . . . . .	39	46	85	3	8	11	11	1	12	17	15	32	5	6	11	1	2	3	2	14	16
4. General paralysis . . . . .	40	9	49	2	—	2	4	—	4	20	7	27	6	1	7	2	—	2	6	1	7
5. With cerebral syphilis . . . . .	—	2	2	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
7. With brain tumor . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	2	4	6	—	—	—	1	2	3	—	2	2	—	—	—	1	—	—	—	—	—
9. Alcoholic . . . . .	31	14	45	6	4	10	6	3	9	15	7	22	2	—	2	1	—	1	1	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	4	11	15	—	1	1	2	5	7	3	7	10	1	1	2	—	—	—	—	—	—
13. Manic-depressive . . . . .	11	40	51	—	3	3	2	7	9	21	7	28	1	9	10	1	—	1	—	2	2
14. Involution melancholia . . . . .	8	5	13	1	1	2	—	2	2	7	1	8	—	—	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	43	33	76	3	3	6	5	1	6	26	12	38	10	13	23	1	1	2	1	3	4
16. Paranoia or paranoid conditions . . . . .	3	24	27	—	1	1	—	1	1	1	20	21	1	—	1	1	1	2	—	1	1
17. Epileptic . . . . .	3	1	4	—	—	—	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	3	—	3	—	—	—	1	—	1	2	—	2	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	2	2	4	—	—	—	—	—	—	2	1	3	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	8	7	15	4	2	6	3	1	4	2	5	7	—	—	—	—	—	—	—	—	—
21. Undiagnosed . . . . .	9	4	13	2	—	2	1	1	2	3	1	4	—	—	—	—	—	—	3	—	3
22. Without psychosis . . . . .	—	6	6	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—	—	1	5
Total . . . . .	235	244	479	22	29	51	42	32	74	118	116	234	28	33	61	8	4	12	17	30	47

<sup>1</sup> Includes those who did not complete fourth grade in school.



TABLE 10. — *Environment of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1922.*

PSYCHOSES.	TOTAL.			URBAN.			RURAL.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	3	—	3	3	—	3	—	—	—	—	—	—
2. Senile . . . . .	25	34	59	25	34	59	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	39	46	85	39	46	85	—	—	—	—	—	—
4. General paralysis . . . . .	40	9	49	40	9	49	—	—	—	—	—	—
5. With cerebral syphilis . . . . .	—	2	2	—	2	2	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	1	—	1	1	—	1	—	—	—	—	—	—
7. With brain tumor . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	2	4	6	2	4	6	—	—	—	—	—	—
9. Alcoholic . . . . .	31	14	45	31	14	45	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
12. With other somatic diseases . . . . .	4	11	15	4	11	15	—	—	—	—	—	—
13. Manic-depressive . . . . .	11	40	51	11	40	51	—	—	—	—	—	—
14. Involution melancholia . . . . .	8	5	13	8	5	13	—	—	—	—	—	—
15. Dementia precox . . . . .	43	33	76	43	33	76	—	—	—	—	—	—
16. Paranoia or paranoid conditions . . . . .	3	24	27	3	24	27	—	—	—	—	—	—
17. Epileptic . . . . .	3	1	4	3	1	4	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	3	—	3	3	—	3	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	2	2	—	2	2	—	—	—	—	—	—
20. With mental deficiency . . . . .	8	7	15	8	7	15	—	—	—	—	—	—
21. Undiagnosed . . . . .	9	4	13	9	4	13	—	—	—	—	—	—
22. Without psychosis . . . . .	—	6	6	—	6	6	—	—	—	—	—	—
Total . . . . .	235	244	479	235	244	479	—	—	—	—	—	—

TABLE 11. — *Economic Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1922.*

PSYCHOSES.	TOTAL.			DEPENDENT.			MARGINAL.			COMFORTABLE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	3	—	3	1	—	1	2	—	2	1	—	1	8	—	8
2. Senile . . . . .	25	34	59	5	12	17	11	10	21	—	—	—	—	10	18
3. With cerebral arteriosclerosis . . . . .	39	46	85	10	17	27	18	9	27	5	3	8	6	17	23
4. General paralysis . . . . .	40	9	49	5	2	7	29	3	32	2	2	4	4	2	6
5. With cerebral syphilis . . . . .	—	2	2	—	—	—	—	2	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	1	—	1	1	—	1	—	—	1	—	—	—	—	—	—
7. With brain tumor . . . . .	—	1	1	—	—	—	1	1	2	—	—	—	1	—	1
8. With other brain or nervous diseases . . . . .	2	4	6	9	2	11	19	9	28	2	1	3	1	2	3
9. Alcoholic . . . . .	31	14	45	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—
12. With other somatic diseases . . . . .	4	11	15	—	—	—	3	4	7	—	—	—	1	—	1
13. Manic-depressive . . . . .	11	40	51	2	2	4	9	20	29	—	—	—	4	4	8
14. Involution melancholia . . . . .	8	5	13	1	1	2	5	4	9	2	14	16	—	2	16
15. Dementia præcox . . . . .	43	33	76	14	7	21	28	12	40	—	10	11	—	4	15
16. Paranoia or paranoid conditions . . . . .	3	24	27	2	3	5	1	17	18	1	2	3	—	2	5
17. Epileptic . . . . .	3	1	4	1	—	1	2	—	2	—	—	—	—	1	1
18. Psychoneuroses and neuroses . . . . .	3	3	6	—	—	—	3	—	3	—	—	—	—	—	—
19. With psychopathic personality . . . . .	2	2	4	1	—	1	1	4	5	—	—	—	—	1	1
20. With mental deficiency . . . . .	8	7	15	4	1	5	4	5	9	—	—	—	—	—	—
21. Undiagnosed . . . . .	9	4	13	2	5	7	7	4	11	—	—	—	—	—	—
22. Without psychosis . . . . .	—	6	6	—	—	—	—	1	1	—	—	—	—	—	—
Total . . . . .	235	244	479	58	54	112	143	103	246	13	41	54	21	46	67

TABLE 12. — *Use of Alcohol by First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1922.*

Psychoses.	TOTAL.			ABSTINENT.			TEMPERATE.			INTERMEDIATE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	3	—	3	—	—	—	2	—	2	1	—	1	1	—	1
2. Senile . . . . .	25	34	59	6	23	28	9	6	15	7	1	8	3	5	8
3. With cerebral arteriosclerosis . . . . .	39	46	85	13	27	40	15	10	25	9	9	18	2	9	11
4. General paralysis . . . . .	40	9	49	8	4	12	17	3	20	9	2	11	6	—	6
5. With cerebral syphilis . . . . .	—	2	2	—	1	1	—	—	—	—	1	1	—	—	—
6. With Huntington's chorea . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
7. With brain tumor . . . . .	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	2	4	6	—	2	2	1	1	2	—	—	—	1	1	2
9. Alcoholic . . . . .	31	14	45	—	—	—	—	—	—	31	13	44	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	4	11	15	2	7	9	—	3	3	2	—	2	—	1	1
13. Manic-depressive . . . . .	11	40	51	7	27	34	2	10	12	2	2	2	—	3	3
14. Involution melancholia . . . . .	8	5	13	3	2	5	3	2	5	2	1	3	—	—	—
15. Dementia praecox . . . . .	43	33	76	29	27	56	10	5	15	2	—	2	2	1	3
16. Paranoia or paranoid conditions . . . . .	3	24	27	1	19	20	2	4	6	—	—	—	—	1	1
17. Epileptic . . . . .	3	4	7	2	—	2	1	—	1	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	3	—	3	1	2	3	2	—	2	—	—	—	—	—	—
19. With psychopathic personality . . . . .	2	4	6	1	3	4	1	3	4	—	—	—	—	—	—
20. With mental deficiency . . . . .	8	7	15	7	3	10	4	4	8	2	1	3	2	—	2
21. Undiagnosed . . . . .	9	4	13	1	3	4	1	—	1	—	—	—	—	—	—
22. Without psychosis . . . . .	—	6	6	—	4	4	—	2	2	—	—	—	—	—	—
Total . . . . .	235	244	479	81	151	232	71	51	122	67	20	87	16	22	38

TABLE 13. — *Marital Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1922.*

PSYCHOSES.	TOTAL.			SINGLE.			MARRIED.			WIDOWED.			SEPARATED.			DIVORCED.			UNASCR- TAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	3	-	3	1	-	1	2	-	2	13	21	34	-	-	-	1	-	-	1	-	-
2. Senile . . . . .	25	34	59	2	5	7	8	8	16	8	26	34	1	-	1	1	-	-	1	-	-
3. With cerebral arteriosclerosis . . . . .	39	46	85	5	12	17	26	6	34	4	1	5	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	40	9	49	6	2	8	29	2	35	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	1	1	2	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	1	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	2	4	6	1	-	1	16	3	3	1	1	2	3	-	1	1	-	-	-	-	-
9. Alcoholic . . . . .	31	14	45	14	1	15	10	10	26	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	1	1	-	-	-	4	6	10	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	4	11	15	7	15	22	4	22	26	-	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive . . . . .	11	40	51	1	3	4	6	1	7	-	-	-	-	-	-	-	-	-	-	-	-
14. Involution melancholia . . . . .	8	5	13	2	1	3	7	10	17	2	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	43	33	76	34	23	57	1	13	14	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia or paranoid conditions . . . . .	3	24	27	4	8	12	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic . . . . .	3	1	4	1	-	1	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	3	3	6	1	-	1	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	2	2	4	2	5	7	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	8	7	15	2	12	14	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed . . . . .	9	4	13	8	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	6	6	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	235	244	479	93	82	175	108	96	204	29	64	93	1	-	1	1	2	3	3	-	-

TABLE 14. — *Psychoses of Readmissions for the Year ending Sept. 30, 1922.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	1	—	1			
2. Senile, total . . . . .	—	4	4			
(a) Simple deterioration . . . . .	—	2	2			
(b) Presbyophrenic type . . . . .	—	—	—			
(c) Delirious and confused states . . . . .	—	—	—			
(d) Depressed and agitated states in addition to deterioration . . . . .	—	1	1			
(e) Paranoid states in addition to deterioration . . . . .	—	1	1			
(f) Presenile types . . . . .	—	—	—			
3. With cerebral arteriosclerosis . . . . .	2	2	4			
4. General paralysis . . . . .	6	1	7			
5. With cerebral syphilis . . . . .	3	—	3			
6. With Huntington's chorea . . . . .	—	—	—			
7. With brain tumor . . . . .	—	—	—			
8. With other brain or nervous diseases, total . . . . .	2	1	3			
Cerebral embolism . . . . .	—	1	1			
Paralysis agitans . . . . .	—	—	—			
Meningitis, tuberculous or other forms . . . . .	—	—	—			
Multiple sclerosis . . . . .	—	—	—			
Tabes . . . . .	1	—	1			
Acute chorea . . . . .	—	—	—			
Other conditions . . . . .	1	—	1			
9. Alcoholic, total . . . . .	8	4	12			
(a) Pathological intoxication . . . . .	—	—	—			
(b) Delirium tremens . . . . .	—	—	—			
(c) Acute hallucinosis . . . . .	—	—	—			
(d) Acute paranoid type . . . . .	—	—	—			
(e) Korsakow's psychosis . . . . .	—	—	—			
(f) Chronic hallucinosis . . . . .	3	1	4			
(g) Chronic paranoid type . . . . .	—	—	—			
(h) Alcoholic deterioration . . . . .	5	3	8			
(i) Other types, acute or chronic . . . . .	—	—	—			
10. Due to drugs and other exogenous toxins, total . . . . .	—	—	—			
11. With pellagra . . . . .	—	—	—			
12. With other somatic diseases, total . . . . .	—	2	2			
(a) Delirium with infectious diseases . . . . .	—	—	—			
(b) Post-infectious psychoses . . . . .	—	—	—			
(c) Exhaustion delirium . . . . .	—	—	—			
(d) Delirium of unknown origin . . . . .	—	—	—			
(e) Diseases of the ductless glands . . . . .	—	—	—			
(f) Cardiorenal disease . . . . .	—	1	1			
(g) Other diseases or conditions . . . . .	—	1	1			
13. Manic-depressive psychoses, total . . . . .	14	17	31			
(a) Manic type . . . . .	5	5	10			
(b) Depressive type . . . . .	7	11	18			
(c) Stupor . . . . .	1	—	1			
(d) Mixed type . . . . .	1	1	2			
(e) Circular type . . . . .	—	—	—			
14. Involution melancholia . . . . .	—	1	1			

TABLE 14. — *Psychoses of Readmissions for the Year ending Sept. 30, 1922* — Concluded.

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
15. Dementia precox, total . . . . .				17	13	30
(a) Paranoid type . . . . .	10	7	17			
(b) Catatonic type . . . . .	2	—	2			
(c) Hebephrenic type . . . . .	2	5	7			
(d) Simple type . . . . .	3	1	4			
16. Paranoia or paranoid conditions . . . . .				—	8	8
17. Epileptic, total . . . . .				—	—	—
18. Psychoneuroses and neuroses, total . . . . .				—	2	2
(a) Hysterical type . . . . .	—	1	1			
(b) Psychasthenic type . . . . .	—	—	—			
(c) Neurasthenic type . . . . .	—	1	1			
(d) Anxiety neuroses . . . . .	—	—	—			
19. With psychopathic personality . . . . .				—	2	2
20. With mental deficiency . . . . .				3	1	4
21. Undiagnosed . . . . .				1	—	1
22. Without psychosis, total . . . . .				2	1	3
(a) Epilepsy without psychosis . . . . .	—	—	—			
(b) Alcoholism without psychosis . . . . .	—	—	—			
(c) Drug addiction without psychosis . . . . .	—	—	—			
(d) Psychopathic personality without psychosis . . . . .	—	—	—			
(e) Mental deficiency without psychosis . . . . .	1	1	2			
(f) Others . . . . .	1	—	1			
Simple depression . . . . .	1	—	1			
Total . . . . .				59	59	118

TABLE 15. — Discharges of Patients classified with Reference to Principal Psychoses and Condition on Discharge for the Year ending Sept. 30, 1922.

PSYCHOSES.	TOTAL.			RECOVERED.			IMPROVED.			UNIMPROVED.			WITHOUT PSYCHOSIS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
2. Senile . . . . .	3	3	6	—	—	—	1	1	2	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	6	7	13	—	—	—	6	6	12	—	—	—	—	—	—
4. General paralysis . . . . .	3	3	6	—	—	—	1	2	3	2	1	3	—	—	—
5. With cerebral syphilis . . . . .	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	17	3	20	8	2	10	8	1	9	1	—	1	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—
11. With pellagra . . . . .	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	34	45	79	25	32	57	9	13	22	—	—	—	—	—	—
13. Manic-depressive . . . . .	2	8	10	—	—	—	2	5	7	—	—	—	—	—	—
14. Involution melancholia . . . . .	25	22	47	—	—	—	19	15	34	6	7	13	—	—	—
15. Dementia praecox . . . . .	—	10	10	—	—	—	—	6	6	—	—	—	—	—	—
16. Paranoia or paranoid conditions . . . . .	—	1	1	—	1	1	—	1	1	—	—	—	—	—	—
17. Epileptic . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	3	1	4	—	—	—	3	1	4	—	—	—	—	—	—
19. With psychopathic personality . . . . .	7	1	8	4	—	4	3	1	4	—	—	—	—	—	—
20. With mental deficiency . . . . .	1	1	2	—	—	—	1	1	2	—	—	—	—	—	—
21. Undiagnosed . . . . .	1	1	2	1	—	1	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	3	—	3	—	—	—	—	—	—	—	—	—	3	—	3
Total . . . . .	108	109	217	39	37	76	54	54	108	12	18	30	3	—	3





DIGESTIVE SYSTEM:	Ulcer of stomach	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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DIGESTIVE SYSTEM:													GENITO-URINARY SYSTEM:													DISEASES OF THE SKIN:													VIOLENCE:												
Ulcer of stomach													Acute nephritis													Gangrene													Accidental traumatism												
Other diseases of the stomach (cancer excepted)													Chronic nephritis																																						
Diarrhea and enteritis																																																			
Hernia and intestinal obstruction																																																			
Other diseases of intestines																																																			
Other diseases of digestive system (cancer and tuberculosis excepted)																																																			

1 Includes group 22 "without psychosis."







TABLE 18. — *Total Duration of Hospital Life of Patients dying in Hospital classified according to Principal Psychoses for the Year ending Sept. 30, 1922 — Concluded.*

PSYCHOSES.	YEARS.												20 AND OVER.								
	5-6.			7-8.			9-10.			11-12.			13-14.			15-19.			20 AND OVER.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic . . . . .	2	2	4	1	2	3	1	1	2	1	1	2	1	1	2	1	1	2	3	3	6
2. Senile . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
3. With cerebral arteriosclerosis . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
4. General paralysis . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
5. With cerebral syphilis . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
6. With Huntington's chorea . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
7. With brain tumor . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
8. With other brain or nervous diseases . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
9. Alcoholic . . . . .	2	2	4	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	3	3	6
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
11. With pellagra . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
12. With other somatic diseases . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
13. Manic-depressive . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
14. Involution melancholia . . . . .	3	1	4	1	1	2	1	1	2	2	2	4	1	1	2	1	1	2	3	3	6
15. Dementia praecox . . . . .	1	1	2	1	1	2	1	1	2	2	2	4	1	1	2	1	1	2	3	3	6
16. Paranoia or paranoid conditions . . . . .	1	1	2	1	1	2	1	1	2	2	2	4	1	1	2	1	1	2	3	3	6
17. Epileptic . . . . .	1	1	2	1	1	2	1	1	2	2	2	4	1	1	2	1	1	2	3	3	6
18. Psychoneuroses and neuroses . . . . .	1	1	2	1	1	2	1	1	2	2	2	4	1	1	2	1	1	2	3	3	6
19. With psychopathic personality . . . . .	1	1	2	1	1	2	1	1	2	2	2	4	1	1	2	1	1	2	3	3	6
20. With mental deficiency . . . . .	1	1	2	1	1	2	1	1	2	2	2	4	1	1	2	1	1	2	3	3	6
21. Undiagnosed . . . . .	1	1	2	1	1	2	1	1	2	2	2	4	1	1	2	1	1	2	3	3	6
22. Without psychosis . . . . .	1	1	2	1	1	2	1	1	2	2	2	4	1	1	2	1	1	2	3	3	6
Total . . . . .	9	7	16	3	5	8	1	2	3	3	3	6	1	2	3	3	3	6	3	3	6









The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1923

THE EIGHTY-THIRD ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



# BOSTON STATE HOSPITAL.

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## The Commonwealth of Massachusetts

### TRUSTEES' REPORT.

*To His Excellency the Governor and the Honorable Council.*

The trustees of the Boston State Hospital have the honor to submit herewith their fifteenth annual report.

#### PERSONS UNDER THE CARE OF THE TRUSTEES.

On December 1, 1922, there were 2,033 patients in the hospital, 15 in private care, and 309 on visit or escape, a total of 2,357 persons under the care of the Board. On November 30, 1923, the total number was 2,486, of whom 2,124 were in the hospital, 12 in private care, and 350 on visit or escape.

#### CONSTRUCTION AND IMPROVEMENTS.

The verandas and the additions to the bakery and refrigerating rooms as authorized in 1922 have been completed and the new equipment installed. In 1923

the only special appropriation made was for a superintendent's house, and for this the sum of \$15,000 was allowed. The house is now under construction and will probably be ready for occupancy before the next summer.

#### IMPROVEMENTS RECOMMENDED.

From the suggestions made by the trustees, the Department of Mental Diseases has recommended appropriations for the following purposes in the coming year: —

Administration building and staff quarters, \$180,000.00.  
 Extensions to sewer, water and steam lines, \$13,000.00.  
 Purchase of land, \$30,000.00.  
 Concrete pavement in front of power house, \$10,000.00.  
 Cottages for farm employees, \$34,000.00.  
 Concrete platform for coal storage, \$6,000.00.

For the administrative offices the hospital has been using a wooden structure composed of two houses connected by a corridor, which is not only inadequate, but is a distinct fire menace, endangering not only the valuable records but the other buildings in its vicinity. The construction of a new building for this purpose will tend to complete the normal requirements of a permanent hospital plant. The two houses could then be removed to more isolated locations on the grounds and used for subsidiary purposes.

The hospital grounds are now very desirably bounded by streets except at one point, at which there is a parcel of land with some wooden buildings belonging to the Trustees of the Forest Hills Cemetery. The acquisition of this land would completely separate the hospital grounds from neighboring properties and would furnish some structures that would be of great service to the hospital. An appropriation that would enable the Commonwealth to acquire this property is very desirable.

The heavy trucking in front of the power house makes necessary a permanent concrete roadway and an appropriation for this purpose is recommended. As it is the policy of the Department to store large quantities of coal at certain times of the year and as there is considerable loss of coal by combustion, if the coal is piled to too great a height, a larger surface for this storage must be furnished.

The farm employees are now housed in an old wooden building, the use of which has been frequently condemned by the state inspectors. It should be replaced as soon as possible by permanent cottages.

#### ESTIMATES FOR MAINTENANCE.

The following are the estimates for the amount needed for maintenance for the ensuing year based, as usual, on the established salary scales and per capita allowances: —

Personal services, \$404,984.00.  
 Religious instruction, \$2,080.00.  
 Travel, transportation, \$9,200.00.  
 Food, \$201,541.62.  
 Clothing and material, \$28,753.25.  
 Furnishings and household supplies, \$52,843.00.  
 Medical and general care, \$30,351.60.  
 Heat, light and power, \$108,703.90.  
 Farm, \$5,640.15.  
 Garage, stable and grounds, \$7,774.21.  
 Repairs, ordinary, \$17,800.00.  
 Repairs and renewals, \$12,090.00.  
 Total, \$881,761.73.

This estimate is based on an expected population of 2,100. The appropriation for the current year was \$731,351.40 for a population of 2,100. This was \$165,750.44 less than the estimate at the beginning of the year, an estimate which was based on the number of officers and employees fixed for the number of patients with the established scale of salaries and wages and on the quantities of food and clothing allowed for that number of patients. In spite of the fact that there were

many vacancies in the personnel, that the utmost economy was used, that needed repairs and improvements were postponed, and that the usual inventory of stores and supplies was practically exhausted at the end of the year, the expenditures exceeded the appropriation by \$21,646.07. This amount has been granted the hospital by the Department of Mental Diseases from a general appropriation made for this purpose. This hospital has never before exceeded its appropriation, but this year the reduction in its estimates was excessive. The trustees question the policy of arbitrarily fixing the appropriations at an unreasonably low figure with a supplementary general appropriation for deficiencies, for if the appropriations are not definite guides for the expenditures, they cease to have the restraining influence which they are supposed to exert. The assumption that there will be a large number of vacancies in the personnel leading to an unreasonable reduction in the item of the appropriation for this purpose, must inevitably influence the hospitals to keep the number of officers and employees at so low a minimum as to affect seriously the care and comfort of the patients committed to their care.

#### GENERAL CONDITIONS.

The trustees have maintained their regular visits to the hospital and have seen much to commend in the sympathetic interest and care of the patients by the officers and attendants in spite of the inadequacy of their numbers. The general health of the hospital has been good, and the number of the inevitable accidents less than one might expect. The reports of the superintendent and other officers, which are appended, furnish all necessary details.

HENRY LEFAVOUR.  
KATHERINE G. DEVINE.  
JOHN A. KIGGEN.  
WILLIAM F. WHITEMORE.

CHARLES B. FROTHINGHAM.  
EDNA W. DREYFUS.  
DAVID M. WATCHMAKER.

### SUPERINTENDENT'S REPORT.

*To the Board of Trustees of the Boston State Hospital.*

In accordance with the provisions of the statutes, I am submitting for your consideration the report of the superintendent for the statistical year ending Sept. 30, 1923, and the fiscal year ending Nov. 30, 1923. Founded by the city of Boston in 1839, this marks the completion of the eighty-fourth year of the institution as a hospital for mental diseases and the fifteenth year of its history as a State hospital.

#### MOVEMENT OF POPULATION.

The census of the hospital on Sept. 30, 1922, was as follows: in the wards, men, 914, women, 1,144, total, 2,058; at home on visit, men, 98, women, 170, total, 268; boarding out, men, 1, women, 13, total, 14; and out on escape, men, 9, women, 2, total, 11; making a total of 2,351, 1,022 men and 1,329 women, in the custody of the hospital.

Two hundred and eighty-four men and 371 women, a total of 655, were received during the year. This included the following: first admissions as insane, men, 200,<sup>1</sup> women, 247, total, 447<sup>1</sup>; readmissions as insane, men, 56, women, 76, total, 132; first admissions, temporary care, men, 9, women, 4, total, 13; readmissions, temporary care, men, 9, women, 12, total, 21; and transferred from other institutions, men, 11, women, 32, total, 43. Two hundred and twenty-seven cases, including 101 men and 126 women, were discharged during the year. Thirty-four men and 35 women, a total of 69, were transferred to other institutions. One hundred and twenty-five men and 123 women, a total of 248, died during the year.

The census on Sept. 30, 1923, was as follows: in the wards, men, 905, women, 1,199, total, 2,104; at home on visit, men, 131, women, 204, total, 335; boarding out, men, 1, women, 9, total, 10; and out on escape, men, 9, women, 4, total, 13; making a total of 2,462, 1,046 men and 1,416 women, in the custody of the hospital.

The total number of cases treated during the year was 3,007, 1,307 men and 1,700 women.

<sup>1</sup> Including one committed from temporary care at the beginning of the year.

The average daily number of patients for the statistical year was: men, 1,036.36, women, 1,374.88, total, 2,411.24. The average daily number in the wards was: men, 909.74, women, 1,180.01, total, 2,089.75, or 86.67 per cent of the whole number. The average daily number at home on visit was: men, 116.32, women, 180.46, total, 296.78, or 12.31 per cent. The average daily number boarding out was: men, 1.00, women, 12.36, total, 13.36, or .55 per cent. The average daily number out on escape was: men, 9.3, women, 2.05, total, 11.35, or .47 per cent. The average daily number of committed cases was: men, 902.73, women, 1,171.90, total, 2,074.63, or 99.27 per cent of the number in the wards. The average daily number of voluntary cases was: men, 4.55, women, 5.90, total, 10.45, or .5 per cent. The average daily number of emergency cases was: men, .025, women, .05, total, .075, or .003 per cent. The average daily number of temporary care cases was: men, 2.46, women, 2.21, total, 4.67, or .22 per cent. The average number of cases under complaint or indictment was: men, 8.88, women, 4.78, total, 13.66, or .65 per cent. The average daily number of epileptics was: men, 20.38, women, 12.78, total, 33.16, or 1.59 per cent. The average daily number of private cases was: men, 22.08, women, 58.90, total, 80.98, or 3.87 per cent. The average daily number of reimbursing cases was: men, 69.09, women, 124.64, total, 193.73, or 9.27 per cent. The average daily number of cases supported by the State was: men, 818.57, women, 996.47, total, 1,815.04, or 86.86 per cent. There was a daily average of 55.5 ex-service men.

The recovery rate, based on the number of first admissions, was 10.05 per cent; based on the total number cared for during the year, 1.49 per cent; based on the average daily number in the wards, 2.16 per cent; and based on the total admissions for the year, 7.0 per cent.

The death rate, based on the total number cared for during the year, was 8.24 per cent; and based on the average daily number in the wards, 11.9 per cent. The death rate of the hospital is unusually large when compared with that of other institutions of a similar character, as over thirty per cent of the population is of the infirmary type, and eight per cent represents actual bed cases. This is due to the fact that the acutely ill, the senile and the infirm cases from the city cannot be readily transported to distant institutions, and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate.

Of the first admissions as insane, 232, or 51.9 per cent, were foreign born, and 307, or 68.68 per cent, were of foreign parentage on one or both sides. Eighty-nine, or 19.91 per cent, were aliens.

The average age on admission was 50.47; 146, or 32.66 per cent, were sixty years of age or over, and 85, or 19.01 per cent, were seventy years of age or over.

The first admissions for the year, classified according to legal status, were as follows:—

	Males.	Females.
Committed cases (section 51, chapter 123, General Laws) . . . . .	171	204
Voluntary admissions (section 86, chapter 123, General Laws) . . . . .	—	—
Emergency commitments (section 78, chapter 123, General Laws) . . . . .	1	4
Cases held under complaint or indictment (section 100, chapter 123, General Laws) . . . . .	4	2
Pending examination and hearing (section 55, chapter 123, General Laws) . . . . .	1	—
Temporary care cases (section 79, chapter 123, General Laws) . . . . .	13	30
Observation cases (section 77, chapter 123, General Laws) . . . . .	10	7
Boston Police cases (chapter 307, Acts of 1910) . . . . .	—	—
Total . . . . .	200	247

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (section 51, chapter 123, General Laws), 83.89 per cent; emergency commitments (section 78, chapter 123, General Laws), 1.12 per cent; cases held under complaint or indictment (section 100, chapter 123, General Laws), 1.34 per cent; cases pending examination and hearing (section 55, chapter 123, General Laws), .23

per cent; temporary care cases (section 79, chapter 123, General Laws), 9.62 per cent; and observation cases (section 77, chapter 123, General Laws), 3.8 per cent. No voluntary cases (section 86, chapter 123, General Laws) and no Boston police cases (chapter 307, Acts of 1910) were admitted during the year.

Three hundred and seventy-five committed cases (section 51, chapter 123, General Laws) were admitted during the year. Of these, 6, or 1.6 per cent, were discharged; 7, or 1.87 per cent, were transferred to other institutions for mental diseases; 72, or 19.2 per cent, died; and 290, or 77.33 per cent, remained at the end of the statistical year.

Five emergency cases (section 78, chapter 123, General Laws) were admitted during the year. These were all committed within a few days after admission, and none remained at the end of the statistical year.

Six cases, held under complaint or indictment, were admitted under the provisions of section 100 of chapter 123 of the General Laws. One of these was transferred to another institution, two were discharged and three remained in the hospital at the end of the statistical year.

One case was admitted, pending examination and hearing, in accordance with the provisions of section 55 of chapter 123 of the General Laws and was subsequently committed under section 51 of the same chapter.

Forty-three temporary care cases (section 79, chapter 123, General Laws) were admitted during the year. Of these, 42, or 97.67 per cent, were committed; and 1, or 2.33 per cent, changed to observation status.

Seventeen cases were admitted for observation (section 77, chapter 123, General Laws) during the year, and were all subsequently committed.

Of the 447 first admissions, the cause was unascertained or no cause given in 140 cases, or 31.32 per cent. In the 307 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 72, or 23.45 per cent; arteriosclerosis, 39, or 12.7 per cent; syphilis, 53, or 17.26 per cent; alcoholism, 44, or 14.33 per cent; involutional changes, 9, or 2.93 per cent; and traumatism, 3, or .98 per cent. There was a family history of mental diseases in 76, or 17.0 per cent, mental defects in 10, or 2.24 per cent, and nervous diseases in 28, or 6.26 per cent, of the first admissions.

The forms of mental disease shown by the first admissions briefly summarized were as follows: senile psychoses, 60, or 13.42 per cent; psychoses with cerebral arteriosclerosis, 70, or 15.66 per cent; general paralysis, 46, or 10.29 per cent; psychoses with other brain or nervous diseases, 6, or 1.34 per cent; alcoholic psychoses, 34, or 7.6 per cent; psychoses with other somatic diseases, 24, or 5.37 per cent; manic-depressive psychoses, 45, or 10.07 per cent; involution melancholia, 10, or 2.24 per cent; dementia praecox, 79, or 17.67 per cent; paranoia or paranoid conditions, 31, or 6.93 per cent; psychoses with mental deficiency, 9, or 2.01 per cent; undiagnosed psychoses, 7, or 1.56 per cent; and all other psychoses one per cent or less. The psychoses of all first admissions are shown in Table No. 6, on page 31.

The forms of mental disease shown by the readmissions, briefly summarized, were as follows: senile psychoses, 6, or 4.55 per cent; psychoses with cerebral arteriosclerosis, 7, or 5.38 per cent; general paralysis, 7, or 5.38 per cent; psychoses with cerebral syphilis, 3, or 2.27 per cent; manic-depressive, 43, or 32.57 per cent; dementia praecox, 37, or 28.03 per cent; paranoia or paranoid conditions, 9, or 6.81 per cent; psychoneuroses and neuroses, 2, or 1.51 per cent; psychoses with mental deficiency, 6, or 4.55 per cent; psychoses with psychopathic personality, 2, or 1.51 per cent; undiagnosed psychoses, 3, or 2.27 per cent; and all other psychoses one per cent or less.

Of these readmissions, 101, or 76.51 per cent, were committed under the provisions of section 51, chapter 123, General Laws; 24, or 18.18 per cent, were temporary care cases (section 79, chapter 123, General Laws); and 7, or 5.31 per cent, were observation cases (section 77, chapter 123, General Laws). No voluntary cases (section 86, chapter 123, General Laws); no emergency cases (section 78, chapter 123, General Laws); no cases held under complaint or indictment (section 100, chapter 123, General Laws); no cases pending examination and hearing (section 55, chapter 123, General Laws); and no Boston police cases (chapter 307, Acts of 1910) were included in the readmissions for the year.



The following tables show the psychoses of all first admissions classified according to legal status:—

*Psychoses of Committed Cases (Section 51, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL.		
				M.	F.	T.
Traumatic psychoses . . . . .	.	.	.	3	—	3
Senile psychoses . . . . .	.	.	.	14	29	43
Simple deterioration . . . . .	13	11	24			
Presbyophrenic type . . . . .	—	1	1			
Delirious and confused . . . . .	—	1	1			
Depressed and agitated . . . . .	—	2	2			
Paranoid states . . . . .	—	13	13			
Presenile types . . . . .	1	1	2			
Psychoses with cerebral arteriosclerosis . . . . .	.	.	.	20	32	52
General paralysis . . . . .	.	.	.	35	9	44
Psychoses with cerebral syphilis . . . . .	.	.	.	2	1	3
Psychoses with Huntington's chorea . . . . .	.	.	.	—	—	—
Psychoses with brain tumor . . . . .	.	.	.	—	1	1
Psychoses with other brain or nervous diseases . . . . .	.	.	.	2	3	5
Organic brain disease . . . . .	—	2	2			
Carcinoma of brain . . . . .	1	—	1			
Transverse myelitis . . . . .	1	—	1			
Not specified . . . . .	—	1	1			
Alcoholic psychoses . . . . .	.	.	.	17	9	26
Pathological intoxication . . . . .	1	—	1			
Delirium tremens . . . . .	10	2	12			
Acute hallucinosis . . . . .	—	1	1			
Acute paranoid type . . . . .	1	1	2			
Korsakow's psychosis . . . . .	1	—	1			
Chronic hallucinosis . . . . .	—	1	1			
Chronic paranoid type . . . . .	—	1	1			
Alcoholic deterioration . . . . .	3	4	7			
Other types . . . . .	1	—	1			
Psychoses with drugs and other exogenous toxins . . . . .	.	.	.	—	—	—
Psychoses with pellagra . . . . .	.	.	.	—	—	—
Psychoses with other somatic diseases . . . . .	.	.	.	7	13	20
Delirium with infectious diseases . . . . .	—	—	—			
Post-infectious psychosis . . . . .	—	—	—			
Exhaustion delirium . . . . .	—	5	5			
Delirium of unknown origin . . . . .	1	—	1			
Cardio-renal diseases . . . . .	1	—	1			
Diseases of the ductless glands . . . . .	—	—	—			
Post-operative delirium . . . . .	1	1	2			
Post-puerperal delirium . . . . .	—	1	1			
Toxemia of pregnancy . . . . .	—	1	1			
Diabetes mellitus . . . . .	1	—	1			
Myocarditis . . . . .	—	1	1			
Delirium with cardio-renal disease . . . . .	1	—	1			
Septicemia . . . . .	1	—	1			
Influenza . . . . .	1	1	2			
Carcinoma of intestines . . . . .	—	1	1			
Pyelonephritis and pelvic cellulitis . . . . .	—	1	1			
Encephalitis lethargica . . . . .	—	1	1			
Manic-depressive psychoses . . . . .	.	.	.	12	28	40
Manic type . . . . .	6	14	20			
Depressive type . . . . .	6	11	17			
Stuporous type . . . . .	—	2	2			
Mixed type . . . . .	—	1	1			
Circular type . . . . .	—	1	1			
Involution melancholia . . . . .	.	.	.	5	5	10
Dementia praecox . . . . .	.	.	.	39	35	74
Paranoid type . . . . .	20	23	43			
Catatonic type . . . . .	7	5	12			
Hebephrenic type . . . . .	9	5	14			
Simple type . . . . .	3	2	5			
Paranoia or paranoid conditions . . . . .	.	.	.	4	24	28
Epileptic psychoses . . . . .	.	.	.	3	1	4
Deterioration . . . . .	2	—	2			
Clouded states . . . . .	1	1	2			
Psychoneuroses and neuroses . . . . .	.	.	.	—	1	1
Hysterical type . . . . .	—	—	—			
Psychasthenic type . . . . .	—	—	—			
Neurasthenic type . . . . .	—	1	1			
Others . . . . .	—	—	—			
Psychoses with psychopathic personality . . . . .	.	.	.	—	4	4
Psychoses with mental deficiency . . . . .	.	.	.	5	2	7
Undiagnosed psychoses . . . . .	.	.	.	2	5	7
Without psychosis . . . . .	.	.	.	1	2	3
Mental deficiency without psychosis . . . . .	1	2	3			
Total . . . . .	.	.	.	171	204	375

*Psychoses of Emergency Commitments (Section 78, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL.		
				M.	F.	T.
Senile psychosis . . . . .	-	1	1	-	1	1
Paranoid type . . . . .	-	1	1			
General paralysis . . . . .				1	-	1
Manic-depressive psychosis . . . . .				-	1	1
Manic type . . . . .	-	1	1			
Dementia praecox . . . . .				-	1	1
Paranoid type . . . . .	-	1	1			
Paranoia or paranoid conditions . . . . .				-	1	1
Total . . . . .				1	4	5

*Psychoses of Cases held under Complaint or Indictment (Section 100, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL.		
				M.	F.	T.
Alcoholic psychoses . . . . .				3	-	3
Acute hallucinosis . . . . .	3	-	3			
Psychoses due to drugs and other exogenous toxins . . . . .				-	2	2
Morphine . . . . .	-	2	2			
Dementia praecox . . . . .				1	-	1
Catatonic type . . . . .	1	-	1			
Total . . . . .				4	2	6

*Psychosis of Case Pending Examination and Hearing (Section 55, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL.		
				M.	F.	T.
Senile psychosis . . . . .				1	-	1
Simple deterioration . . . . .	1	-	1			
Total . . . . .				1	-	1

*Psychoses of Temporary Care Cases (Section 79, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL.		
				M.	F.	T.
Senile psychoses . . . . .				1	11	12
Simple deterioration . . . . .	1	5	6			
Depressed and agitated . . . . .		1	1			
Paranoid types . . . . .	-	5	5			
Psychoses with cerebral arteriosclerosis . . . . .				7	11	18
General paralysis . . . . .				-	1	1
Psychosis due to drugs and other exogenous toxins . . . . .				-	1	1
Veronal . . . . .	-	1	1			
Psychoses with other somatic diseases . . . . .				4	-	4
Exhaustion delirium . . . . .	1	-	1			
Cardiovascular-renal disease . . . . .	1	-	1			
Tuberculosis of the lungs . . . . .	1	-	1			
Carcinoma of pharynx . . . . .	1	-	1			
Manic-depressive psychoses . . . . .				-	4	4
Manic type . . . . .	-	1	1			
Depressive type . . . . .	-	3	3			
Dementia praecox . . . . .				-	1	1
Catatonic type . . . . .	-	1	1			
Paranoia or paranoid conditions . . . . .				-	1	1
Psychoneuroses and neuroses . . . . .				1	-	1
Psychasthenic type . . . . .	1	-	1			
Total . . . . .				13	30	43

*Psychoses of Observation Cases (Section 77, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL.		
				M.	F.	T.
Traumatic psychosis . . . . .	.	.	.	1	-	1
Senile psychoses . . . . .	.	.	.	2	1	3
Simple deterioration . . . . .	2	-	2			
Paranoid type . . . . .	-	1	1			
Psychoses with cerebral syphilis . . . . .	.	.	.	1	1	2
Psychoses with other brain or nervous diseases . . . . .	.	.	.	-	1	1
Hemiplegia . . . . .	-	1	1			
Alcoholic psychoses . . . . .	.	.	.	3	2	5
Delirium tremens . . . . .	1	-	1			
Chronic hallucinosis . . . . .	1	-	1			
Chronic paranoid type . . . . .	1	-	1			
Alcoholic deterioration . . . . .	-	2	2			
Dementia praecox . . . . .	.	.	.	1	1	2
Simple type . . . . .	1	1	2			
Paranoia or paranoid conditions . . . . .	.	.	.	1	-	1
Psychoses with mental deficiency . . . . .	.	.	.	1	1	2
Total . . . . .	.	.	.	10	7	17

Eighty-three temporary care cases (section 79, chapter 123, General Laws) were admitted during the year ending Sept. 30, 1922. Sixty-three were committed under the provisions of section 51, chapter 123, General Laws, two changed to emergency status, none to voluntary, and four to observation status. Of the twelve discharges, one, or 8.34 per cent, were discharged as recovered; two, or 16.67 per cent, as improved; seven, or 58.92 per cent, as unimproved; and two, or 16.67 per cent, as without psychosis. None died, none were transferred, and two remained at the end of the statistical year.

Eight emergency cases (section 78, chapter 123, General Laws) were admitted during the year. Seven of these were committed and one discharged, leaving none at the end of the statistical year. In addition to this there should be noted two cases shown in the admissions for the year as temporary care cases, later committed under the provisions of section 78, and finally under section 51, chapter 123, General Laws.

Forty-six observation cases (section 77, chapter 123, General Laws) were admitted during the year, including four shown in the admissions under section 79, and later changed to observation status in accordance with the provisions of section 77. Twenty-seven were committed, 15 discharged, one died and three cases remained at the end of the statistical year. Of the fifteen discharges, three, or 20 per cent, were discharged as recovered; none as improved; two, or 13.33 per cent, as unimproved; and 10, or 66.67 per cent, as without psychosis.

Seven cases held under complaint or indictment (section 100, chapter 123, General Laws) were admitted during the year. Of these, one was transferred to another hospital, two were discharged (one as recovered and one as unimproved), and the remaining four are still in the institution.

One case pending examination and hearing (section 55, chapter 123, General Laws) was admitted during the year and subsequently committed under the provisions of section 51, chapter 123, General Laws.

No voluntary cases (section 86, chapter 123, General Laws) were admitted during the year.

No Boston police cases (chapter 307, Acts of 1910) were admitted during the year.

The following table shows the psychoses of all cases admitted as temporary care and subsequently committed under the provisions of section 51, chapter 123, General Laws: —

	M.	F.	T.	TOTAL.		
				M.	F.	T.
Traumatic psychoses . . . . .	.	.	.	1	—	1
Senile psychoses . . . . .	.	.	.	4	15	19
Simple deterioration . . . . .	4	7	11			
Depressed and agitated . . . . .	—	1	1			
Paranoid types . . . . .	—	7	7			
Psychoses with cerebral arteriosclerosis . . . . .	.	.	.	9	12	21
General paralysis . . . . .	.	.	.	3	1	4
Psychoses with cerebral syphilis . . . . .	.	.	.	2	1	3
Psychoses with Huntington's chorea . . . . .	.	.	.	—	—	—
Psychoses with brain tumor . . . . .	.	.	.	—	—	—
Psychoses with other brain or nervous diseases . . . . .	.	.	.	—	1	1
Hemiplegia . . . . .	—	1	1			
Alcoholic psychoses . . . . .	.	.	.	6	3	9
Pathological intoxication . . . . .	.	.	.			
Delirium tremens . . . . .	1	—	1			
Acute hallucinosis . . . . .	3	—	3			
Acute paranoid type . . . . .	—	—	—			
Korsakow's psychosis . . . . .	—	1	1			
Chronic hallucinosis . . . . .	1	—	2			
Chronic paranoid type . . . . .	1	—	1			
Alcoholic deterioration . . . . .	—	2	2			
Other types . . . . .	—	—	—			
Psychoses due to drugs and other exogenous toxins . . . . .	.	.	.	—	3	3
Morphine . . . . .	—	2	2			
Veronal . . . . .	—	1	1			
Psychoses with pellagra . . . . .	.	.	.	—	—	—
Psychoses with other somatic diseases . . . . .	.	.	.	4	—	4
Exhaustion delirium . . . . .	1	—	1			
Cardiovascular-renal disease . . . . .	1	—	1			
Carcinoma of pharynx . . . . .	1	—	1			
Tuberculosis of the lungs . . . . .	1	—	1			
Manic-depressive psychoses . . . . .	.	.	.	3	13	16
Manic type . . . . .	2	5	7			
Depressive type . . . . .	1	6	7			
Stuporous type . . . . .	—	1	1			
Mixed type . . . . .	—	1	1			
Circular type . . . . .	—	—	—			
Involution melancholia . . . . .	.	.	.	—	—	—
Dementia praecox . . . . .	.	.	.	4	7	11
Paranoid type . . . . .	2	3	5			
Catatonic type . . . . .	1	1	2			
Hebephrenic type . . . . .	—	2	2			
Simple type . . . . .	1	1	2			
Paranoid condition . . . . .	.	.	.	1	4	5
Epileptic psychoses . . . . .	.	.	.	—	1	1
Epileptic deterioration . . . . .	—	1	1			
Psychoneuroses and neuroses . . . . .	.	.	.	2	—	2
Psychasthenic type . . . . .	1	—	1			
Neurasthenic type . . . . .	1	—	1			
Psychosis with psychopathic personality . . . . .	.	.	.	—	1	1
Psychoses with mental deficiency . . . . .	.	.	.	1	1	2
Undiagnosed psychoses . . . . .	.	.	.	1	1	2
Without psychosis . . . . .	.	.	.	—	—	—
Total . . . . .	.	.	.	41	64	105

The following table shows the psychoses of all admissions during the year, exclusive of transfers:—

	M.	F.	T.	TOTAL.		
				M.	F.	T.
Traumatic psychoses . . . . .	.	.	.	5	—	5
Senile psychoses . . . . .	.	.	.	21	46	67
Simple deterioration . . . . .	18	19	37			
Presbyophrenic type . . . . .	—	1	1			
Delirious and confused types . . . . .	—	1	1			
Depressed and agitated types . . . . .	2	3	5			
Paranoid types . . . . .	—	21	21			
Presenile types . . . . .	1	1	2			
Psychoses with cerebral arteriosclerosis . . . . .	.	.	.	32	49	81
General paralysis . . . . .	.	.	.	44	10	54
Psychoses with cerebral syphilis . . . . .	.	.	.	6	2	8
Psychoses with Huntington's chorea . . . . .	.	.	.	—	—	—
Psychoses with brain tumor . . . . .	.	.	.	—	1	1
Psychoses with other brain or nervous diseases . . . . .	.	.	.	2	4	6
Cerebral embolism . . . . .	—	—	—			
Paralysis agitans . . . . .	—	—	—			
Meningitis, tubercular or other forms . . . . .	—	—	—			
Multiple sclerosis . . . . .	—	—	—			
Tabes dorsalis . . . . .	—	—	—			
Acute chorea . . . . .	—	—	—			
Other diseases . . . . .	2	4	6			
Alcoholic psychoses . . . . .	.	.	.	26	13	39
Pathological intoxication . . . . .	1	1	2			
Delirium tremens . . . . .	1	—	1			
Acute hallucinosis . . . . .	13	2	15			
Acute paranoid type . . . . .	—	1	1			
Korsakow's psychosis . . . . .	1	1	2			
Chronic hallucinosis . . . . .	3	1	4			
Chronic paranoid type . . . . .	1	1	2			
Alcoholic deterioration . . . . .	5	6	11			
Other types . . . . .	1	—	1			
Psychoses due to drugs and other exogenous toxins . . . . .	.	.	.	—	4	4
Opium (and derivatives), cocaine, bromides, chloral, etc. . . . .	—	4	4			
Psychoses with pellagra . . . . .	.	.	.	—	—	—
Psychoses with other somatic diseases . . . . .	.	.	.	12	15	27
Delirium with infectious disease . . . . .	—	—	—			
Post-infectious psychosis . . . . .	—	—	—			
Exhaustion delirium . . . . .	1	6	7			
Delirium of unknown origin . . . . .	1	1	2			
Cardiorenal diseases . . . . .	2	—	2			
Diseases of the ductless glands . . . . .	—	—	—			
Other diseases or conditions . . . . .	8	8	16			
Manic-depressive psychoses . . . . .	.	.	.	26	63	89
Manic type . . . . .	13	31	44			
Depressive type . . . . .	13	27	40			
Stuporous type . . . . .	—	3	3			
Mixed type . . . . .	—	2	2			
Circular type . . . . .	—	—	—			
Involution melancholia . . . . .	.	.	.	6	6	12
Dementia praecox . . . . .	.	.	.	59	59	118
Paranoid type . . . . .	36	37	73			
Catatonic type . . . . .	8	7	15			
Hebephrenic type . . . . .	10	12	22			
Simple type . . . . .	4	3	7			
Other types . . . . .	1	—	1			
Paranoia or paranoid conditions . . . . .	.	.	.	7	35	42
Epileptic psychoses . . . . .	.	.	.	4	2	6
Epileptic deterioration . . . . .	3	1	4			
Epileptic clouded states . . . . .	1	1	2			
Other types . . . . .	—	—	—			
Psychoneuroses and neuroses . . . . .	.	.	.	2	5	7
Hysterical type . . . . .	.	.	.			
Psychasthenic type . . . . .	1	2	3			
Neurasthenic type . . . . .	1	3	4			
Anxiety neuroses . . . . .	—	—	—			
Other types . . . . .	—	—	—			
Psychoses with psychopathic personality . . . . .	.	.	.	2	5	7
Psychoses with mental deficiency . . . . .	.	.	.	9	8	17
Undiagnosed psychoses . . . . .	.	.	.	3	7	10
Without psychosis . . . . .	.	.	.	8	5	13
Epilepsy without psychosis . . . . .	—	—	—			
Alcoholism without psychosis . . . . .	—	—	—			
Drug addiction without psychosis . . . . .	—	—	—			
Psychopathic personality without psychosis . . . . .	1	—	1			
Mental deficiency without psychosis . . . . .	3	4	7			
Others . . . . .	4	1	5			
Depression . . . . .	2	—	2			
Somatic disease . . . . .	—	1	1			
Cerebral syphilis . . . . .	1	—	1			
Carcinoma of pharynx . . . . .	1	—	1			
Total . . . . .				274	339	613

The psychoses represented by the cases discharged from the hospital during the year were as follows: senile psychoses, 5, or 2.52 per cent; psychoses with cerebral arteriosclerosis, 7, or 3.53 per cent; general paralysis, 6, or 3.03 per cent; psychoses with cerebral syphilis, 2, or 1.01 per cent; alcoholic psychoses, 22, or 11.11 per cent; psychoses due to drugs and other exogenous toxins, 1, or .51 per cent; psychoses with other somatic diseases, 7, or 3.53 per cent; manic-depressive psychoses, 65, or 32.82 per cent; involution melancholia, 2, or 1.01 per cent; dementia praecox, 47, or 23.73 per cent; paranoia or paranoid conditions, 11, or 5.56 per cent; psychoses with psychopathic personality, 8, or 4.04 per cent; psychoses with mental deficiency, 10, or 5.05 per cent; undiagnosed psychoses, 2, or 1.01 per cent; and without psychosis, 3, or 1.52 per cent.

The total number of cases discharged during the year was 198. Of this number 41, or 20.71 per cent, were discharged as recovered; 117, or 59.05 per cent, as improved; 37, or 18.71 per cent, as unimproved; and 3, or 1.53 per cent, as without psychosis. Of the 41 recovered cases, 26, or 63.41 per cent, were cases of manic-depressive psychoses; 7, or 17.07 per cent, alcoholic psychoses; 1, or 2.44 per cent, psychoses due to drugs or other exogenous toxins; 1, or 2.44 per cent, involution melancholia; 3, or 7.32 per cent, psychoses with other somatic diseases; 2, or 4.88 per cent, psychoses with mental deficiency; and 1, or 2.44 per cent, psychosis with psychopathic personality. Of the 117 cases discharged as improved, 33, or 28.20 per cent, were cases of manic-depressive psychoses; 30, or 25.64 per cent, dementia praecox; 13, or 11.11 per cent, alcoholic psychoses; 11, or 9.40 per cent, paranoia or paranoid conditions; 7, or 5.98 per cent, psychoses with psychopathic personality; 6, or 5.12 per cent, psychoses with mental deficiency; 5, or 4.26 per cent, psychoses with cerebral arteriosclerosis; 3, or 2.56 per cent, general paralysis; 3, or 2.56 per cent, psychoses with other somatic diseases; 2, or 1.72 per cent, senile psychoses; 2, or 1.72 per cent, undiagnosed psychoses; 1, or .86 per cent, psychosis with cerebral syphilis; and 1, or .86 per cent, involution melancholia. Of the 37 cases discharged as unimproved, 17, or 46.0 per cent, were dementia praecox; 6, or 16.20 per cent, manic-depressive psychoses; 3, or 8.10 per cent, senile psychoses; 3, or 8.10 per cent, general paralysis; 2, or 5.40 per cent, psychoses with cerebral arteriosclerosis; 2, or 5.40 per cent, alcoholic psychoses; 2, or 5.40 per cent, psychoses with mental deficiency; 1, or 2.70 per cent, psychosis with cerebral syphilis; and 1, or 2.70 per cent, psychosis with other somatic disease.

A study of the entire hospital residence (including other institutions for mental diseases) of the cases discharged during the statistical year is of considerable interest. Eight, or 4.10 per cent, were discharged after a residence of less than one month; 66, or 33.85 per cent, after a residence of from one to six months; 43, or 22.05 per cent, from six months to one year; 32, or 16.41 per cent, from one to two years; 17, or 8.72 per cent, two to three years; 10, or 5.13 per cent, three to four years; 5, or 2.57 per cent, four to five years; 12, or 6.13 per cent, five to ten years; and 2, or 1.03 per cent, ten years and over. The average duration of total hospital residence was one year, seven months and six days.

Of the 247 deaths occurring during the year, 115, or 46.56 per cent, represented cases dying at the age of sixty or over. In 76 cases, or 30.65 per cent, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: bronchopneumonia, 55, or 22.27 per cent; arteriosclerosis, 29, or 11.74 per cent; tuberculosis of the lungs, 28, or 11.33 per cent; endocarditis and myocarditis, 38, or 15.38 per cent; general paralysis of the insane, 25, or 10.12 per cent; lobar pneumonia, 11, or 4.49 per cent; and chronic nephritis, 10, or 4.05 per cent.

The psychoses represented by deaths occurring in the hospital during the year were as follows: senile psychoses, 41, or 16.6 per cent; psychoses with cerebral arteriosclerosis, 59, or 23.88 per cent; general paralysis, 52, or 21.05 per cent; psychosis with cerebral syphilis, 1, or .40 per cent; psychosis with brain tumor, 1, or .40 per cent; psychoses with other brain or nervous diseases, 3, or 1.21 per cent; alcoholic psychoses, 15, or 6.07 per cent; psychoses with other somatic diseases, 16, or 6.48 per cent; manic-depressive psychoses, 12, or 4.84 per cent; involution melancholia, 9, or 3.63 per cent; dementia praecox, 29, or 11.74 per

cent; paranoia or paranoid conditions, 4, or 1.61 per cent; and epileptic psychoses, 2, or .80 per cent. Of the 41 cases of senile psychoses dying in the hospital during the year, 9, or 21.95 per cent, were due to bronchopneumonia. Of the 59 cases of arteriosclerotic psychoses, death was due in 16, or 27.12 per cent, to bronchopneumonia, and in 18, or 30.51 per cent, death was attributed directly to arteriosclerosis. Of the 52 cases of general paralysis, 14, or 26.92 per cent, were reported as dying from bronchopneumonia, and in 25, or 48.07 per cent, general paralysis of the insane was given as the cause of death. Of the 29 cases of dementia praecox, death was due in 17, or 58.62 per cent, to pulmonary tuberculosis. Of the nine cases of involution melancholia, the cause of death was reported as bronchopneumonia in 4, or 44.44 per cent.

Of the 247 patients dying in the hospital during the year the total duration of hospital residence was as follows: one year or less, 142, or 57.5 per cent; one to two years, 26, or 10.52 per cent; two to three years, 21, or 8.5 per cent; three to four years, 12, or 4.85 per cent; four to five years, 10, or 4.05 per cent; five to six years, 3, or 1.22 per cent; six to seven years, 4, or 1.62 per cent; seven to eight years, 7, or 2.83 per cent; eight to nine years, 6, or 2.43 per cent; nine to ten years, 5, or 2.03 per cent; ten to fifteen years, 9, or 3.64 per cent; fifteen to twenty years, 2, or .81 per cent. The average duration of hospital residence of the cases dying in the hospital during the year was two years, two months and nineteen days. The psychoses showing the longest hospital residence were as follows: senile psychosis, one over sixteen years; dementia praecox, one over fifteen years; cerebral arteriosclerosis, one over fourteen years; and alcoholic psychosis, one over fourteen years.

The following general statistical information relating to the ward service should be of interest:—

	Males.	Females.	Totals.	Percentage.
Average daily population . . . . .	909.74	1,180.01	2,089.75	100.00
In bed . . . . .	89.24	84.02	173.26	8.29
In restraint . . . . .	1.12	4.15	5.27	.25
In seclusion . . . . .	.74	11.59	12.33	.59
Eating in dining rooms . . . . .	794.10	924.06	1,718.17	82.22
Eating on wards . . . . .	115.64	255.95	371.62	17.78
Fed by nurses . . . . .	14.47	44.31	58.78	2.81
Idle . . . . .	395.45	636.62	1,032.07	48.43
Employed . . . . .	514.29	543.39	1,057.68	51.67
Parole of grounds . . . . .	128.93	42.19	171.12	8.19
Out for exercise . . . . .	775.39	744.89	1,520.28	72.75
Noisy . . . . .	44.85	138.95	183.80	8.79
Violent . . . . .	.35	37.20	37.55	1.79
Destructive . . . . .	2.13	47.46	49.64	2.37
Soiled or wet . . . . .	55.26	164.61	219.87	10.51
Taking medicine . . . . .	16.52	44.71	61.23	2.93
Infirm . . . . .	347.72	373.95	721.67	34.53

The percentages shown in the above table represent the average daily number in each instance for the entire year, thus: the average daily number of patients in bed was 173.26, or 8.29 per cent of the average daily population, and the average daily number out for exercise was 1,520.28, or 72.75 per cent of the average daily population. The table shows an unusually large percentage of our population to consist of bed cases. As has already been explained, this is largely due to the fact that the senile and infirm cases cannot readily be removed to institutions outside of the metropolitan district, and come to the Boston State Hospital. The hospital has, for this reason, an infirmary class approximating 35 per cent of the total number of cases cared for. The number of patients in restraint and seclusion, as shown by the above table, although small, is due in part to the fact that there has been such an unfortunate shortage of nurses and attendants. If the percentage of infirm cases is eliminated (and this, of course, includes the bed patients), the average daily number going out for exercise must be looked upon as quite large. The average daily number of noisy patients is of considerable interest. The number of patients actually violent is not at all consistent with the popular ideas regarding institutions of this type. The number of patients actually employed in

useful occupations should not be looked upon as small if the percentage of bed cases is taken into consideration. The number actually taking medicine would be considerably smaller were it not for the senile and infirm population.

#### GENERAL HEALTH OF THE HOSPITAL.

The general health of the hospital has been very satisfactory during the year, there having been no serious epidemics of any kind. The mild attacks of enteritis which have been more or less prevalent for several years have been very infrequent during the past twelve months. The occasional cases of influenza which were reported during the winter are not worthy of any special consideration, in view of the fact that nothing resembling an epidemic manifested itself at any time. One patient and one employee had attacks of typhoid fever during the year. Both made uneventful recoveries. The source of infection appears to have been traced to a point outside of the hospital.

There was the usual number of minor accidents and injuries in the wards. All of these were thoroughly investigated and reported in the usual manner to the Board of Trustees and the Department of Mental Diseases. It is gratifying to report that there have been no homicides or suicides.

Special attention has been devoted by Dr. Roy D. Halloran to the active treatment of neurosyphilis. This has included the intravenous use of arsphenamine, tryparsamide, and sulpharsphenamine, and muscular injections of sulpharsphenamine and of mercury. A special report of his work with sulpharsphenamine was presented at a meeting of the Norfolk District Medical Society which was held at the hospital on October 30th. The treatments given during the year may be summarized as follows:—

Arsphenamine, intravenous, 27.  
 Tryparsamide, intravenous, 14.  
 Sulpharsphenamine, intravenous, 45.  
 Sulpharsphenamine, intramuscular, 45.  
 Mercury, intramuscular, 78.

The number of deaths occurring during the year is shown on page 4, and the number of autopsies is given in the report of the pathological laboratory.

#### EMPLOYEES.

The problem of maintaining an adequate force of employees in the hospital has not been so serious as it was during the preceding year. On September 30, 1922, there were 386 persons in the employ of the hospital. During the year 822 were appointed, 685 resigned and 141 were discharged. Twelve hundred and eight persons occupied 444 positions, — a rotation of 2.72. The average daily number of employees during the year was 394.96, with 11.89 per cent of vacancies. The average daily number in the ward service was 214.56, with 16.6 per cent of vacancies. The ratio of ward employees was one to 9.74 patients, and of all employees, one to 5.29. Although this represents a slight improvement over the past year, the shortage, especially in the ward service, has been such as to interfere somewhat with the efficient and proper care of patients. This has affected the medical service in various ways. Less patients have been employed and there has been more restraint and seclusion than would be needed ordinarily. The lack of ward supervision, moreover, has resulted in a destruction of clothing and other ward supplies that is of considerable importance from a financial point of view. The limited number of nurses and attendants has, of course, materially interfered with our ability to satisfactorily handle the large number of visitors calling at the hospital to see their relatives and friends. The total number of visits made to the patients during the last year was 62,074. We often have 500 or 600 visitors during one day, the highest number on any one day during the year being 978. The decrease in the number of nurses is, of course, a material factor in increasing accidents, injuries and escapes. At the present time there is much less difficulty in obtaining the services of male employees. It is still hard, however, to maintain an adequate force of female nurses and attendants. This is due, doubtless, in part, to the fact that the hours of duty are long, and association with mental cases is not attractive



to those who are not familiar with this line of work. This is a problem, however, which has affected the general hospitals as much as it has the institutions for mental diseases. Under the circumstances, if an increased compensation is not possible for ward employees, certainly no reduction should be contemplated. One of the factors which has interfered with our maintenance of an adequate force of ward employees heretofore has been the lack of comfortable living quarters. The occupancy of the new nurses' home in the East Group has remedied this situation in a way which has already been productive of definite results. At the present time we are unable to properly house male ward attendants. The employees' cottage occupied by men has a capacity of only 42. Our quota of male attendants is 114. It has been necessary for them to be quartered in attics and in many other places which are far from being desirable. We are badly in need of a new building for male ward attendants. We have no satisfactory place for employees engaged in outside work. The old farm house in the West Group, which furnishes quarters for only 19 persons, is in such a condition that it should be torn down and replaced as soon as possible. There has always been difficulty in inducing our employees to live in it. The fact that our male attendants have been scattered around in so many different places has, of course, made it difficult to keep them under proper supervision.

The shortage of staff quarters is also a serious matter which should be remedied as soon as the cost of construction will permit. Various officers and employees assigned to the East Group have from time to time been compelled to live in buildings in the West Group, nearly a mile away.

#### THE MEDICAL SERVICE.

Very few changes have taken place in the medical service during the year. Dr. Franklin I. Flagg was appointed assistant physician on Jan. 28, 1923. Dr. Flagg received his preliminary education at the Harblitz Preparatory School in Roxbury, and his degree in medicine from the Middlesex Medical School in 1921, after which he served for one year as house physician at the Malden Hospital. On July 5, 1923, Dr. Jacob Kasanin was appointed assistant physician. Dr. Kasanin received the degree of B.S. from the College of Literature, Science and Arts in 1919, and his degree in medicine from the University of Michigan Medical School in 1921. He served for one year as interne at the Mt. Sinai Hospital in Cleveland. He has done special work in psychiatry at the University of Michigan. On October 1, 1923, Dr. Herbert E. Herrin, who was appointed assistant physician on July 23, 1921, was promoted to the position of senior assistant physician. Dr. Grace E. Rochford of Boston was appointed consulting obstetrician on May 21, 1923. On June 12, 1923, Dr. Edwin A. Meserve was appointed consulting laryngologist, otologist and rhinologist to fill the vacancy caused by the resignation of Dr. Fred A. Simmons.

Staff meetings have been held as usual during the year, alternating between the East and West groups. Efforts have been made to present all new admissions at staff meetings, as well as cases about to leave the hospital on visit or cases to be discharged.

The following summary of the more important operations of the year includes cases sent to the Boston City Hospital also. Dr. Irving J. Walker of Boston has visited the hospital regularly and had charge of this work.

Abdominal carcinoma, 1; Accouchement forcé, 1; Amputation of left arm, 1; Amputation of left leg, 1; Cholecystectomy, 2; Drainage of abscess on right groin, 1; Exploratory laparotomy and partial hysterectomy, 1; Exploratory laparotomy with drainage, 1; Extensive drainage for pelvic origin, 1; Herniotomy, 3; Incision and drainage of tubercular abscess over left scapula, 1; Prostatectomy, suprapubic, 1; Removal of epithelioma from right side of abdomen, 1.

#### OUT-PATIENT SERVICE.

The supervision of patients in family care and those at home on visit, as well as the after care of cases discharged from the custody of the hospital, is an important part of the work of the out-patient department. Medical advice also is

given to numerous persons who visit the hospital for the purpose of consulting members of the staff on matters pertaining to their own welfare or that of their family or relatives. The patients who have been allowed to go home on visit, or who have left the hospital temporarily for family care, are visited at frequent intervals by our social workers. Patients on visit are also required to report at the hospital at regular intervals for observation. Considerable supervision is also given to former patients who have been discharged but who are kept under observation by the social workers and physicians. Some cases appearing for consultation are referred to their family physicians or to the Boston Psychopathic Hospital. The following is a report of the movement of population of patients under the supervision of the out-patient department:—

	Males.	Females.
In family care Sept. 30, 1922 . . . . .	1	13
On escape Sept. 30, 1922 . . . . .	9	2
On visit Sept. 30, 1922 . . . . .	98	170
Dismissed to family care during the year . . . . .	—	7
Escaped during the year . . . . .	24	11
Dismissed on visit during the year . . . . .	1,090	860
Admitted from family care . . . . .	—	8
Admitted from escape . . . . .	19	9
Admitted from visit . . . . .	995	723
Admitted from family care and discharged . . . . .	—	3
Admitted from escape and discharged . . . . .	5	—
Admitted from visit and discharged . . . . .	62	103
In family care Sept. 30, 1923 . . . . .	1	9
On escape Sept. 30, 1923 . . . . .	9	4
On visit Sept. 30, 1923 . . . . .	131	204

#### SOCIAL SERVICE DEPARTMENT.

The following is a summary of the social service work done during the year under the direction of Miss Marie L. Donohoe:—

	Males.	Females.	Totals.
Total number of cases considered during the year . . . . .	577	683	1,260
New cases, Hospital . . . . .	141	180	321
New cases, School clinic . . . . .	190	165	355
Renewed cases from previous year . . . . .	51	100	151
Continued cases from previous year . . . . .	188	234	422
Outside cases . . . . .	7	4	11
Cases closed during the year:			
Hospital . . . . .	249	241	490
School clinic . . . . .	190	165	355
Cases continued . . . . .	138	277	415
Sources of new cases:			
Referred by physicians . . . . .	73	116	189
Referred by community agencies . . . . .	25	21	46
Referred by friends or relatives . . . . .	2	6	8
Referred by patients' own initiative . . . . .	4	5	9
Selected by Social Service . . . . .	37	32	69
Referred by schools . . . . .	190	165	355
Purposes for which cases were referred:			
Histories:			
Hospital patients . . . . .	45	55	100
School clinic . . . . .	190	165	355
Home investigation prior to discharge of patient . . . . .	5	42	47
Social investigation, including statements of patients, of relatives or neighbors, complaints, conduct disorders, employment, etc. . . . .	114	159	273
To assist families of patients . . . . .	32	41	73
To care for needs of ex-service men, such as compensation, guardianship, etc. . . . .	70	1	71

Purposes for which cases were referred — *Concluded.*

Supervision:	Males.	Females.	Totals.
Cases cared for in a general way, with visits, advice, hygiene, etc.	27	188	215
Cases with whom real social treatment is attempted, i.e., study and analysis followed by the application of a careful, well thought-out plan of treatment	16	49	65
Boarded out cases	1	15	16
Personal services	49	90	139
Employment	15	43	58
Psychoses of new cases:			
Traumatic psychoses	3	1	4
Senile psychoses	5	20	25
Psychoses with cerebral arteriosclerosis	3	11	14
General paralysis	12	5	17
Psychoses with cerebral syphilis	5	3	8
Psychoses with Huntington's chorea	—	—	—
Psychoses with brain tumor	—	—	—
Psychoses with other brain or nervous diseases	1	3	4
Alcoholic psychoses	20	11	31
Psychoses due to drugs and other exogenous toxins	—	3	3
Psychoses with pellagra	—	—	—
Psychoses with other somatic diseases	1	4	5
Manic-depressive psychoses	28	25	53
Involution melancholia	—	3	3
Dementia praecox	31	45	76
Paranoia or paranoid conditions	4	19	23
Epileptic psychoses	1	1	2
Psychoneuroses and neuroses	—	4	4
Psychoses with psychopathic personality	1	2	3
Psychoses with mental deficiency	11	9	20
Undiagnosed psychoses	8	8	16
Without psychosis	7	3	10
Social problems in all cases:			
School problems	—	—	355
Disease:			
Mental	—	—	159
Physical	—	—	34
Sex problems	—	—	4
Environmental problems:			
Financial	—	—	66
Employment	—	—	94
Unsuitable environment	—	—	31
Friction	—	—	46
Marital difficulties	—	—	6
Personality problems:			
Temperament	—	—	102
Anti-social habits	—	—	46
Vacillating interests	—	—	22
Educational problems:			
Readjustment of habits of mind	—	—	89
Recreation, — church, social relationships	—	—	42
Legal problems:			
Ex-service men	—	—	71
Family problems other than friction	—	—	93
Nature of service rendered in all cases:			
Medical:			
Information relating to medical history:			
Hospital cases	45	55	100
School clinic cases	190	165	355

Nature of service rendered in all cases — *Concluded.*

Medical — <i>Concluded.</i>		Males.	Females.	Totals.
Information relating to home . . . . .		5	42	47
Information relating to O. P. D. . . . .		43	237	280
Arrangements for medical assistance . . . . .		5	17	22
Social:				
Adjustment:				
Environment . . . . .		—	—	90
Personal relations . . . . .		—	—	110
In industry . . . . .		—	—	47
In recreation . . . . .		—	—	60
Advice:				
To relatives . . . . .		—	—	118
To patients . . . . .		—	—	140
To others . . . . .		—	—	28
Family assistance and advice:				
Legal . . . . .		—	—	82
Financial . . . . .		—	—	25
Other . . . . .		—	—	41
Personal services . . . . .		—	—	192
Placement:				
Home . . . . .		—	—	44
Industrial . . . . .		—	—	35
Arrangement for further study . . . . .		—	—	24
Connecting with agencies . . . . .		—	—	71
Connecting with individuals . . . . .		—	—	24
Total number of visits . . . . .		939	1,885	2,824
To patients on ward . . . . .		94	202	296
To patients on visit . . . . .		149	667	816
To relatives and friends . . . . .		347	605	952
To agencies . . . . .		176	239	415
To others . . . . .		173	172	345

A paper by Miss Donohoe describing the occupational therapy work carried on at Hopkinton was read at the National Conference on Social Work, at Washington, in May, 1923. The theses written by the two students who were here for nine months during the year were both accepted for publication in "Mental Hygiene," one having already appeared.

The authorized personnel of the social service department remains unchanged, — one head social service worker and two assistants. We also have the services of several students during nine months of the year. A larger number of workers, however, and higher salaries would enable the department to cover a wider field and do much more efficient work.

## PATHOLOGICAL LABORATORY.

The routine work of the pathological laboratory may be summarized as follows:—

Autopsies, 74. Blood examinations: Cell count, red, 20; Cell count, white, 20; Cell count, differential, 19. Cerebrospinal fluid examinations, 110. Determination of sugar in spinal fluid, 31. Sputum examinations, 47. Urinalyses, 654. Wassermann reactions: Blood serum, 568; cerebrospinal fluid, 117. Neurosyphilis treatments, 195; Number of cases treated, 34.

For postmortem work we are indebted to Dr. Myrtelle M. Canavan, pathologist to the Department of Mental Diseases, who has done all the autopsies at the hospital since the resignation of Dr. Uyematsu in March, 1922.

The number of deaths in the hospital during the year was 248, of which 74 came to autopsy, making the autopsy percentage for the year 29.84.

The following shows the psychoses represented in cases coming to autopsy:—

Senile psychoses, 15; Psychoses with cerebral arteriosclerosis, 14; General paralysis, 17; Psychosis with brain tumor, 1; Psychoses with other brain or nervous diseases, 3; Alcoholic psychoses, 7; Psychoses with other somatic dis-

eases, 5; Manic-depressive psychoses, 4; Dementia praecox, 6; Psychoneurosis, 1; Epileptic psychosis, 1. Total, 74.

The causes of death of these cases are shown in the following:—

Abscess of kidney, 1; Arteriosclerosis, 3; Brain tumor, pituitary, 1; Bronchitis, acute, 1; Bronchitis, acute purulent, 2; Bronchopneumonia, 13; Carcinoma of pharynx, 1; Carcinoma of stomach, 2; Carcinomatosis, general, 1; Cholecystitis, chronic, 1; Cirrhosis of liver, 1; Cystitis, acute, 1; Empyema, 1; Endocarditis, acute purulent, 1; Endocarditis, chronic, 2; Exhaustion from manic-depressive psychosis, 1; General paralysis, 7; Hemorrhage into stomach, 1; Myocarditis, 5; Nephritis, chronic, 3; Nephritis, chronic interstitial, 5; Peritonitis, general, 3; Pleurisy with effusion, 1; Pneumonia, lobar, 7; Septicemia, 2; Tuberculosis of lungs, 7. Total, 74.

#### DENTISTRY.

Dr. Lawrence H. Stone, the resident dentist, has carried on the dental work of the hospital during the year, assisted for three months during the summer by a dental interne, Mr. Leif M. Nielssen. The following is a summary of the work of this department:—

Abscesses treated, 13; Bridges, 5; Cleanings, 2,022; Crowns, 3; Examinations, 1,578; Fillings, 1,405; Inlays, 6; Miscellaneous, 177; Plates, 14; Plates repaired, 2; Root canal treatments, 100; Roots extracted, 1,645; Teeth extracted, 1,736; Patients treated, 3,458.

#### HYDROTHERAPY.

Dr. Rebekah B. Wright, representing the Department of Mental Diseases, has devoted as much attention to this department as was possible, consistent with her other duties. During the year 5,785 packs and 1,879 continuous baths were given, making the average daily number of packs 15.85 and the average daily number of continuous baths 6.68.

#### TRAINING SCHOOL FOR NURSES.

The training school for nurses has completed its twenty-fourth year. There has been no change in the executive staff, the work of the school having been carried on, as in the preceding year, by the superintendent of nurses, Miss Mary Alice McMahon, R.N. The affiliation of our school with the Boston City Hospital training school has continued throughout the year and furnishes our pupils valuable instruction and training for twelve months in general hospital work. On Thursday evening, June 28th, the graduating exercises of the training school were held at the East Group chapel. Dr. George K. Pratt, Medical Director of the Massachusetts Society for Mental Hygiene, delivered the address of the evening, and the diplomas were presented by Mr. William F. Whittemore of the Board of Trustees. The graduating class included the following nurses: Agnes Winifred Bain, Enid Cordelia Fralic; Mary Ellen MacDaniel, Annabel MacLeod, Anna Jean Morang, Mary Irene Mumford, Gladys Helene Powers, Margaret Evangeline Wallace, and Nella Keefe Wallace. The junior class for 1923-24 consists of three, the intermediate class of one, and the senior class of six. One pupil is now receiving her instruction for the intermediate year at the Boston City Hospital. Fourteen graduates of our training school are now employed in the wards of the institution. There is continued difficulty in maintaining successful training schools for nurses in the State hospitals. This is doubtless due to the fact that the work of a nurse in caring for psychiatric cases is more difficult in many ways than that of nurses in the general hospitals. The instruction of employees who are to care for the patients in our wards is one of the most important objects of nurses' training schools, although it is desirable to graduate nurses who are qualified to care for psychiatric cases in the community. Unfortunately, however, we are unable to retain our graduates, who, as a rule, leave almost immediately on completion of their course of instruction to accept much more remunerative positions in other services, or to take up general nursing, which offers much greater financial rewards. We must have more graduate nurses if the standards of our hospitals are to be maintained. To accomplish this, it will be necessary to offer a higher rate of pay to graduate and charge nurses, although there has been an increase during the

year. The systematic instruction of attendants, both male and female, is being carried on along the lines prescribed by the committee on training schools, representing the Department of Mental Diseases.

#### OCCUPATIONS AND INDUSTRIES.

Under the direction of Miss Frances E. Wood, the occupational work of the institution has continued to increase in extent, 1,069 different patients having come under the supervision of this department during the year. Of this number 42 were found to be unfit for work in the department, 21 died, 143 improved enough to be allowed to go home, 16 were sent to other hospitals, and 62 were benefited sufficiently to be capable of working in other departments. The average daily number occupied in the male wards was 70, and in the female wards, 178, making a total average daily number of 248. The highest number occupied on any one day was 764. At the present time we have three occupational therapists on duty at the West Group and one at the East Group, in addition to the head of the department. On October 31st one occupational therapist resigned to accept the position of head occupational therapist in a State hospital in Michigan. During the year nine students from the Boston School of Occupational Therapy have spent one month each at the hospital for practical experience. Eight pupil nurses from the training school have also been given instruction during the year, and at the present time three attendants are assigned to the department for duty. It is hoped that several more occupational therapists may be authorized in order that the work may be carried on more efficiently and a greater number of patients reached. It is difficult to secure occupational therapists at the rate of pay allowed, as other States offer better inducements. A systematic attempt has been made to interest in occupation of some kind as many patients in the wards as can be employed under existing circumstances, and who are unable, for any reason, to go to the industrial room. Occupational work has been carried on during the year in buildings A, B, C, D, E and F in the East Group, and buildings A, B, C, D, F and G in the West Group. This consists of basketry, rug making, weaving, lace making, embroidery, knitting, crocheting, sewing, mending, furniture repairing, woodwork, simple bookbinding, tin work, cord work and drawing. During the year a new class for women has been started in a room in the West B basement, accommodating from thirty to forty. New classes have also been established on the male wards. The quality of work done by the patients has improved materially during the year, as has also their attitude towards helpful occupations. A year ago patients came to the class-room with reluctance; now those who come urge others to ask for assignment. Though the articles made are often of no intrinsic value, the patients are much benefited by the encouragement of a return of self confidence, self control and new and helpful interest. In a few cases it has been possible to teach new crafts to men who could use them as a means of livelihood upon their discharge from the hospital. The work with deteriorated cases has given very gratifying results, the patients having progressed noticeably in every way, and a greater number now being occupied. A few of these are able to leave the ward to go to the class-room, and most of them take more interest in their personal appearance. We have accomplished during the year all that can be done with the limited number of occupational instructors available. A class in calisthenics would be desirable and would doubtless open the way for greater interest and the accomplishment of more handicraft work. With additional assistants the work can be more systematically done, of much more benefit to a greater number of patients, and of real assistance to the hospital, in that the work of nurses and attendants would be decreased, destruction still more diminished and a higher grade of occupational work developed. The estimated value of articles produced in the wards during the year was \$700.00.

The "occupational therapy center for mental patients," at Hopkinton, established under the direction of Miss Marie L. Donohoe, head social worker, during the summer of 1922, and made possible by private contributions, has continued its work throughout the year. Fifteen different patients have been given convalescent care, their residence at the center extending from ten days in some cases to over a year in others. With two exceptions, these patients have all shown

marked improvement, some of them having recovered sufficiently to take their places in the community and live normal, helpful lives. Several of them have been enabled to return to their homes, and, while not entirely recovered, are doing well, and improving continually. The atmosphere at the center is that of a large family, each patient there sharing in the home duties. An occupational instructor is employed at the center one day each week, and the work is all graded according to the abilities of the individual patients, ranging from the simplest sewing to the highest type of skilled handiwork. The therapeutic aspect of the work is not lost sight of in the effort to produce articles of real commercial value and the attempt to render the center partly self-supporting. During 1923 nearly \$800 worth of the work of patients at the center has been sold, this representing the amount paid to the patients after deducting the cost of the materials. There is a very real need for just the sort of care and occupational interest that can be provided for patients in centers of the type described, but the hospital can only make a beginning at the present time. Repeatedly, cases are referred to the Social Service Department for readjustment in the community, and many times the homes to which these patients must necessarily return are such as to render improvement or recovery impossible. In cases of this kind the convalescent center, with its help to readjustment through occupation, is of great value. It is hoped that the center at Hopkinton may demonstrate its benefit to patients to such an extent that with greater facilities in the future other centers of this type may be established and the field covered may thus be considerably broadened.

Industrial work for women in the East Group, under the direction of Miss Hilda B. Young, consists of basketry, rug making, weaving, lace making, embroidery, knitting, crocheting, sewing, mending, etc. The estimated value of the articles made in the East Group industrial room during the year was \$5,431.50. Mr. James F. Hurley is in charge of the industrial work for men, which is carried on entirely in the basement of Building B in the West Group. This work includes shoe repairing and various other repair work, the manufacture of several different kinds of brushes, brooms, coat hangers, hats and numerous other articles. The value of articles produced during the year is estimated at \$10,140.86. The articles produced in the occupational and industrial departments of the hospital for the year represented a total valuation of \$16,272.36.

#### AGRICULTURAL ACTIVITIES FOR THE YEAR.

The work of the farm for the past year has been carried on under the direction of Mr. Lawrence J. Olsen. There was a total of 144 acres under cultivation. This consisted of 23 acres devoted to field crops and 28 to gardening, in addition to which there were 89 acres of meadowland and 4 of orchards and small fruits. The estimated value of farm products during the year was \$13,748.02.

#### FINANCIAL STATEMENT.

In accordance with the provisions of Chapter 126 of the Acts of 1923, the Legislature made an appropriation of \$15,000 for the construction of a superintendent's house.

The maintenance appropriation for the year was \$731,351.40. This was supplemented by an allotment of \$22,050, making a total of \$753,801.40. The maintenance expenditures of the hospital for the year were as follows:—

	Amount expended.	Per Capita.	Percentage of Total.
Personal services . . . . .	\$312,432 13	\$147.788	41.49
Travel, transportation and office expenses . . . . .	8,104 52	3.833	1.08
Food . . . . .	185,403 94	87.701	24.62
Religious instruction . . . . .	2,050 00	.969	.27
Clothing and materials . . . . .	36,219 19	17.132	4.81
Furnishings and household supplies . . . . .	47,586 33	22.509	6.32
Medical and general care . . . . .	25,122 63	11.884	3.33
Heat, light and power . . . . .	79,180 53	37.455	10.51
Farm and stable . . . . .	6,292 86	2.979	.84
Grounds . . . . .	9,545 77	4.515	1.27
Repairs, ordinary . . . . .	18,490 15	8.746	2.46
Repairs and renewals . . . . .	22,569 42	10.676	3.00
Total . . . . .	\$752,997 47	\$356.187	100.00

Based on the average daily population of the hospital (2,114.05), the per capita cost of maintenance for the year was \$356.187, or \$6.849 per week. The per capita cost for the year 1922 was \$354.44, or \$6.816 per week. The cost of commodities in general continues to be higher than normal, and is a factor in keeping up the cost of maintenance. The large infirmary population of this hospital and the greater number of bed patients than in other institutions of this type is also a matter of importance. A considerable increase in the cost of maintenance is due to our lack of agricultural facilities and the absence of a dairy. The old buildings erected many years ago, made up of small units and consisting largely of single rooms, necessitate a larger number of ward employees and more supervision than would be required in buildings of another type where only custodial care is needed. No buildings designed exclusively for purely custodial patients in considerable numbers have ever been erected at this institution. The cost of maintaining the old buildings erected many years ago by the city of Boston has, of course, been very high.

#### GENERAL OPERATIONS FOR THE YEAR.

The addition to the power house, which was provided for by Chapter 129 of the Acts of 1922, as noted in the last annual report, was completed in September, 1922. During the month of January, 1923, the following equipment was installed: one 10" by 6" by 10" Duplex brine circulating pump, one 4½" by 2¾" by 4" Duplex brine mixing pump, one 12" by 9" by 14" tandem Worthington engine and Laidlaw ammonia compressor, 25 tons refrigeration, with feather valves; capacity of tank, 48 blocks per day, weight of block 100 lbs. This equipment makes a material addition to the capacity of our refrigerating plant and enables us to manufacture ice enough to supply the needs of the institution. This has become a matter of considerable importance, owing to the fact that we no longer are able to store any natural ice during the winter months as a result of the filling in of the pond in the East Group. The old refrigerating outfit now constitutes a very valuable reserve which can be used in emergency.

The new bakery building, located in the rear of the storehouse in the East Group, and completed in September, 1922, as noted in the annual report of last year, was not opened until August 13, 1923, owing to the difficulty in making provisions for an adequate supply of hard coal during the winter. The completion of this plant has placed at our disposal one of the best institution bakery buildings in New England.

The ceiling in Ward 1 of the East G Building, which has given us so much trouble for a number of years, was replaced by a new one during the month of January, 1923. The difficulty was due to the fact that the plaster was attached directly to the cement floor of the ward above and came off at very frequent intervals. To remedy this condition, it was necessary to cover the concrete surface of the ceiling with metal lath. The ward was repainted and refinished throughout after completion of the new ceiling.

Owing to the shortage of employees, several wards in the East Group were closed during a part of the year, the upper floor of the C Building remaining vacant until March, 1923.

A new six roll flatwork ironer was installed in the laundry during the winter and is now rendering excellent service. We have also added to the laundry equipment a new universal press and an extractor. Two drying tumblers and a drying cabinet, which were received late in the year, have not as yet been installed.

It was necessary in April, 1923, to reopen the dining room in Ward 3 of the East C Building, owing to the large number of patients who for various reasons were not able to go to the kitchen and dining room building.

The first floor of the East G Building was reoccupied during the same month, the repairs above mentioned having been completed at that time.

The Superintendent and Trustees of the Concord State Hospital, Concord, N. H., visited the hospital on Friday, May 11, 1923, and went through many of the buildings in both the East and West groups.

Representatives of the Department of Public Safety visited the hospital during the month of May, 1923, for the purpose of making an inspection of our means of fire protection and making recommendations relating to such changes as their investigation showed to be necessary.



During the month of April, 1923, the employees' club opened a store in the new clubhouse in the West Group. They have made arrangements to sell cigars, candy, tobacco, soft drinks, coffee, sausages, etc., to the employees of the hospital, as well as to visitors. The proceeds are, of course, to be devoted to the employees' club. This venture has proved to be a success financially as well as a great convenience to the many persons visiting the hospital daily.

Some progress has been made in grading on the site of the old pond in the East Group, as the result of donations of soil contributed by various building contractors. The shortage of employees, however, has materially interfered with the successful completion of this work and it will have to be finished during the coming year.

Chapter 126 of the Acts of 1923 rendered available the sum of \$15,000 for the construction of a Superintendent's house. The necessary excavations were completed during the month of June. The house will be located on Canterbury Street a short distance west of Morton Street. All of the labor involved is to be furnished by the regular employees of the hospital. It is expected that the house will be ready for occupancy some time during the summer of 1924. At the end of the year the framework was completed and the roof finished.

The work of painting the F Building in the West Group was completed during the summer months and the appearance of that building was very materially improved. It is a very attractive, as well as a very satisfactory building for patients of the infirmary type.

The annual field day exercises of the hospital were held on July fourth in the West Group field. The affair was unfortunately marred to a certain extent by rain, and it was necessary to give up the entertainment shortly after it started. The patients were removed to the West Group dining room building, where a luncheon was served during the afternoon which was thoroughly enjoyed by all.

The Superintendent represented the hospital at the annual meeting of the American Psychiatric Association, which was held in Detroit on June 19th to 22nd inclusive.

The nurses dining room in the West Group was painted for the first time during the summer.

The work of replacing the old wooden shingles in the A, E and F buildings of the East Group by asphalt shingles was completed during the month of July, 1923. This adds materially to the appearance of the buildings in this group, as well as constituting an additional source of protection from fire.

Some work was done during the summer in finishing part of the roadway leading from the East to the West group.

The maintenance appropriation for the current year included an item providing for the installation of window guards in the West G Building. The amount appropriated for this purpose was not adequate and should be supplemented during the coming year. Twenty-six outside guards were installed during the month of August, 1923, and twenty-two inside window screens were placed in position during the latter part of the summer.

Five continuous bath tubs of the J. L. Mott type were purchased during the summer and will be installed in the West A Building as soon as it becomes possible for our force of carpenters to do the remodeling of the building which will be necessary for that purpose. These baths will be available for use during the current year.

A meeting of the Norfolk District Medical Society was held at the hospital on Tuesday, October 30, 1923. The visiting physicians were taken through the West F Building and inspected the operating room, as well as the kitchen and dining room building in the West Group. They were also given a demonstration of occupational therapy in the West C Building. The following program was presented by the hospital staff:

1. The Importance of Psychiatry in the Practice of Medicine. By Dr. James V. May.
2. A Review of Several Cases of Interest to the General Practitioner. By Dr. Ermy C. Noble.
3. A Report on Thirteen Cases of Neurosyphilis Treated with Sulpharsphenamine. By Dr. Roy D. Halloran.

Owing to the unusual demand for the services of our carpenters, it was not possible for us to complete the remodeling of the administration building in the West Group during the year.

Considerable progress was made on the filling in of the site between Morton Street and the power house, storehouse, etc., in the East Group. It is to be hoped that this will be completed during the coming winter.

The usual visits were made during the year by the Executive Council, representatives of the Department of Mental Diseases, and the Legislative Committee on Public Institutions.

Attention should be called again to the desirability of acquiring the 150,000 square feet of land belonging to the Forest Hills Cemetery and located south of Canterbury Street, adjoining the West Group. This is the only part of the site bounded by Canterbury Street on the north, Harvard Street on the south, Morton Street on the east, and Walk Hill Street on the west that has not as yet been acquired by the State. The buildings on this land could be used to very good advantage and would facilitate the removal of the barns and other objectionable structures adjoining the administration building in the East Group. The desirability of acquiring this land was referred to by the joint special legislative committee on public institutions in their report of March, 1920, as shown in Senate Document No. 450.

Further reference should be made at this time to the Canterbury Branch of Stony Brook. Although the channel of this brook was cleaned out by the city several years ago, it is already overgrown with weeds and is as badly obstructed as ever. The brook not infrequently overflows its banks, and from 30 to 40 acres of hospital land have been covered with water at times. It occasionally gets into the steam conduits, and has flooded the pump room of the power house to a depth of a foot and a half. Such an overflow may at any time render it impossible to provide heat for the West Group, which now has a capacity of over 1,500 beds. This condition of affairs should be remedied as soon as possible. The conduit built by the city extends to the point where the brook enters the hospital property on Harvard Street. The brook runs through the grounds for a distance of approximately 4,500 feet. The conduit should be extended for at least 2,200 feet to the point where the hospital road crosses the brook in the West Group. This would reclaim 30 or 40 acres of valuable land, worth approximately \$260,000. The work of enclosing this brook as originally undertaken by the city is incomplete, and the present condition was intended only as a temporary arrangement. The joint special committee of the Legislature reporting on public institutions in 1920 referred to this as a serious matter requiring immediate attention.

#### NEEDS OF THE HOSPITAL FOR THE COMING YEAR.

The following items relating to construction deemed necessary for the coming year were submitted some time since to the Department of Mental Diseases:—

1. Administration Building and Staff Quarters . . . . .	\$180,000
2. Extension to Sewer, Water and Steam Lines . . . . .	13,000
3. Addition to Garage . . . . .	4,200
4. Purchase of Additional Land . . . . .	30,000
5. Concrete Pavement in front of Power House . . . . .	10,000
6. Concrete Platform for Coal Storage . . . . .	6,000
7. Cottage for Farm Employees . . . . .	34,000
Total . . . . .	<hr/> \$277,200

1. *Administration Building and Staff Quarters.*—The offices of the institution are now located in an old building purchased by the city of Boston about fifty years ago for use as an almshouse. This is a two and one-half story building constructed of wood throughout, contains numerous exposed electric wires, and has several wooden stairways running from the basement to the attic. This building is located within 50 yards of a large wooden barn containing hay, and is surrounded by other non-fireproof structures, the nearest being the chapel and a building occupied by patients. Its presence in this location is a serious menace,

and in case of fire would threaten the loss of the entire East Group. The building now houses over 50 employees, 30 of whom are living in the attic. The offices of the hospital should be in a central location. It is very inconvenient for relatives and friends of the patients to come from Walk Hill Street to the present administration building. The hospital has now reached a stage of development where an administration building is urgently needed. We do not propose to demolish the old wooden building now used for office purposes, but suggest removing it to other locations where it can be remodeled and used for housing employees, etc. In erecting an administration building we propose to provide additional accommodations for the staff on the second floor. Attention should be called to the fact that no new construction has ever been provided at the institution as yet for the exclusive use of the medical officers of the hospital.

2. *Extension to Sewer, Water and Steam Lines.* — When a new administration building is erected an extension to the sewer, water and steam lines of the institution will be necessary. Provision should be made for this at as early a moment as possible. When completed, this extension will also provide for several other buildings.

3. *Addition to Garage.* — No garage has ever been built for the hospital. We are using the old West Group boiler house, remodeled for this purpose, at the present time. It is, however, not large enough, and additional space is badly needed.

4. *Purchase of Additional Land.* — It has long been felt that it would be desirable for the hospital to acquire 150,000 square feet of land adjoining our property on the north. This would furnish a site for future barns and other out-buildings which has been needed for a great many years.

5. *Concrete Pavement in Front of Power House.* — There is a granite block pavement in front of the laundry at the present time. This is not laid in cement and will have to be taken up soon. When relaid, this should be extended to the front of the power house and carried as far as the storehouse. The heavy trucks now delivering coal to the power house render the installation of some kind of a serviceable pavement necessary. The cheapest pavement available will be concrete, at an estimated cost of \$10,000.

6. *Concrete Platform for Coal Storage.* — The recommendations of the consulting engineers representing the Department of Mental Diseases show that we should be able to take care of at least 6,000 tons of coal at one time. At present this is done by spreading the coal over a large space near the power house. This land is low and is frequently overflowed by water from the Canterbury Branch of Stony Brook. A considerable loss would be prevented by storing this coal on a cement platform (20,000 square feet).

7. *Cottage for Farm Employees.* — Attention has been called to the necessity of further provision for the housing of farm employees. The building now used for this purpose in the West Group is one which has been in constant use since 1904. It has been remodeled throughout on several occasions and cannot be repaired further to good advantage. The building inspectors of the district police have refused to certify it for occupancy, and it should be replaced at the earliest possible moment.

Respectfully submitted,

JAMES V. MAY, *Superintendent.*

Nov. 30, 1923.

# VALUATION

## NOVEMBER 30, 1923.

REAL ESTATE.	
Land (233 acres) . . . . .	\$576,680 00
Buildings . . . . .	2,705,564 44
	<u>\$3,282,244 44</u>
PERSONAL PROPERTY.	
Travel, Transportation and Office Supplies . . . . .	\$183 25
Food . . . . .	13,375 14
Clothing and Materials . . . . .	29,636 47
Furnishings and Household Supplies . . . . .	197,407 73
Medical and General Care . . . . .	3,545 09
Heat, Light and Power . . . . .	31,653 50
Farm . . . . .	13,093 20
Garage, Stable and Grounds . . . . .	8,416 38
Repairs . . . . .	13,593 86
	<u>\$310,904 62</u>
SUMMARY.	
Real Estate . . . . .	\$3,282,244 44
Personal Property . . . . .	310,904 62
	<u>\$3,593,149 06</u>

## TREASURER'S REPORT.

*To the Commissioner of the Department of Mental Diseases.*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1923.

CASH ACCOUNT.	
Balance December 1, 1922 . . . . .	\$24,257 71
<i>Income.</i>	<i>Receipts.</i>
Board of inmates:	
Private . . . . .	\$30,829 43
Reimbursements, insane . . . . .	72,232 29
	<u>\$103,061 72</u>
Personal services:	
Reimbursement from Board of Retirement . . . . .	214 97
Sales:	
Travel, transportation and office expenses . . . . .	\$94 86
Food . . . . .	703 08
Clothing and materials . . . . .	44 90
Furnishings and household supplies . . . . .	68 19
Medical and general care . . . . .	40 25
Heat, light and power . . . . .	44 85
Farm:	
Pigs and hogs . . . . .	\$23 28
Hay . . . . .	50 00
	<u>73 28</u>
Repairs, ordinary . . . . .	31 00
	<u>1,100 41</u>
Miscellaneous:	
Interest on bank balances . . . . .	\$702 27
Interest on patients' funds . . . . .	81 36
	<u>783 63</u>
Other receipts:	
Refunds of previous year . . . . .	105,160 73
	<u>41 03</u>
<i>Receipts from Treasury of Commonwealth.</i>	
Maintenance appropriations:	
Balance of 1922 . . . . .	\$17,962 49
Approved schedules of 1923 (\$752,997.47 less \$18,768.07 paid direct by State Treasurer) . . . . .	734,229 40
	<u>752,191 89</u>
Special appropriations:	
Balance of 1922 . . . . .	\$6,180 34
Approved schedules of 1923 (\$42,136.43 less \$1,002.40) . . . . .	41,134 03
	<u>47,314 37</u>
Total . . . . .	<u>\$928,965 73</u>
Payments.	
To treasury of Commonwealth:	
Institution income . . . . .	\$105,160 73
Refunds of previous year . . . . .	41 03
	<u>\$105,201 76</u>
Maintenance appropriations:	
Balance of schedules of previous year (Nov. sch., \$73,362.49; less adv., \$31,142.29) . . . . .	\$42,220 20
Approved schedules of 1923 . . . . .	\$752,997 47
Less paid direct by State Treasurer . . . . .	18,768 07
	<u>734,229 40</u>
	<u>776,449 60</u>

## Special appropriations:

Balance of schedules of previous year . . . . .		\$6,180 34	
Approved schedules of 1923 . . . . .	\$42,136 43		
Less paid by State Treasurer . . . . .	1,002 40		
		<u>41,134 03</u>	\$47,314 37
Total . . . . .			\$928,965 73

## MAINTENANCE.

Balance from previous year, brought forward . . . . .		\$16 87	
Appropriation, current year, \$731,334.53; transfer from maint. of Inst. approp., \$22,450.00		753,784 53	
Total . . . . .			\$753,801 40
Expenses (as analyzed below) . . . . .			752,997 47
Balance reverting to treasury of Commonwealth . . . . .			\$803 93

## Analysis of Expenses.

Personal services . . . . .		\$312,432 13	
Religious instruction . . . . .		2,050 00	
Travel, transportation and office expenses . . . . .		8,104 52	
Food . . . . .		185,403 94	
Clothing and materials . . . . .		36,219 19	
Furnishings and household supplies . . . . .		47,586 33	
Medical and general care . . . . .		25,122 63	
Heat, light and power . . . . .		79,180 53	
Farm . . . . .		6,292 86	
Garage, stable and grounds . . . . .		9,545 77	
Repairs, ordinary . . . . .		18,490 15	
Repairs and renewals . . . . .		22,569 42	
Total expenses for maintenance . . . . .			\$752,997 47

## SPECIAL APPROPRIATIONS.

Balance December 1, 1922 . . . . .		\$42,110 39	
Appropriations for current year . . . . .		15,000 00	
Total . . . . .			\$57,110 39
Expended during the year (see statement below) . . . . .	\$42,136 43		
Reverting to treasury of Commonwealth . . . . .	2,589 77		
		<u>44,726 20</u>	
Balance November 30, 1923, carried to next year . . . . .			\$12,384 19

OBJECT.	Act or Resolve.	Whole Amount.	Expended during Fiscal Year.	Total expended to Date.	Balance at End of Year.
Male Infirmary . . . . .	50 — 1918 629 — 1920 203 — 1921 211 — 1919	\$404,595 80	\$2,296 51	\$402,915 11	\$1,680 69*
Home for 80 Nurses . . . . .	225 — 1920 629 — 1920 203 — 1921 211 — 1919	152,700 00	1,459 92	152,690 47	9 53*
Dining Room, East Group . . . . .	629 — 1920 211 — 1919	152,000 00	—	150,579 32	1,420 68
Dining Room, West Group . . . . .	225 — 1920 629 — 1920 203 — 1921	224,100 00	897 35	223,983 39	116 61*
Laundry . . . . .	203 — 1921	15,000 00	10,365 00	14,926 98	73 02*
Sewer Line . . . . .	203 — 1921	5,000 00	242 55	4,290 08	709 92*
Veranda C . . . . .	129 — 1922	8,000 00	1,237 80	7,991 90	8 10*
Veranda G . . . . .	129 — 1922	5,000 00	772 07	4,881 07	118 93
Addition to Bakery . . . . .	129 — 1922	36,000 00	4,323 18	35,977 55	22 45
Addition to Refrigerating Rm. . . . .	129 — 1922	23,000 00	15,262 58	21,906 50	1,093 50
Superintendent's House . . . . .	123 — 1923	15,000 00	5,279 47	5,279 47	9,720 53
		\$1,040,395 80	\$42,136 43	\$1,025,421 84	\$14,973 96

\*Balance reverting to treasury of the Commonwealth . . . . . \$2,589 77

Balance carried to next year . . . . . 12,384 19

Total as above . . . . . \$14,973 96

## PER CAPITA.

During the year the average number of inmates has been 2,114.05.

Total cost for maintenance, \$752,997.47.

Equal to a weekly per capita cost of \$6.8497+.

Receipt from sales, \$1,100.41.

Equal to a weekly per capita of \$0.01.

All other institution receipts, \$104,060.32.

Equal to a weekly per capita of \$0.9466.

Net weekly per capita, \$5.8931.

Respectfully submitted,

ADELINE J. LEARY,  
Treasurer.

Examined and found correct as compared with the records in the office of the Comptroller.

JAMES C. McCORMICK,  
Comptroller.

# STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION.

PRESCRIBED BY MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES.

TABLE 1. — *General Information.*

1. Date of opening as an institution for the insane: Dec. 11, 1839.	
2. Type of institution: State since Dec. 1, 1903.	
3. Hospital plant:	
Value of hospital property:	
Real estate including buildings . . . . .	\$3,282,244 44
Personal property . . . . .	310,904 62
Total . . . . .	\$3,593,149 06
Total acreage of hospital property owned, 233.	
Additional acreage rented, none.	
Total acreage under cultivation during previous year, 144.	

	ACTUALLY IN SERVICE AT END OF YEAR.			VACANCIES AT END OF YEAR.		
	M.	F.	T.	M.	F.	T.
4. Officers and employees:						
Superintendents . . . . .	1	—	1	—	—	—
Asst. Superintendent . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	6	3½	9½	2	½	2½
Pathologist . . . . .	—	—	—	1	—	1
Medical internes . . . . .	—	—	—	—	—	—
Clinical assistants . . . . .	—	—	—	—	—	—
Total physicians . . . . .	8	3½	11½	3	½	3½
Stewards . . . . .	1	—	1	—	—	—
Resident dentists . . . . .	—	—	—	—	—	—
Graduate nurses . . . . .	—	17	17	24	28	52
Other nurses and attendants . . . . .	90	101	191	—	1	1
Teachers of occupational therapy . . . . .	—	4	4	—	—	—
Social workers . . . . .	—	3	3	—	—	—
All other officers and employees . . . . .	82	74	156	3¼	—	3¼
Total officers and employees . . . . .	182	202½	384½	30¼	29½	59¾

	ACTUALLY IN INSTITUTION.			ABSENT FROM INSTI- TUTION BUT STILL ON BOOKS.		
	M.	F.	T.	M.	F.	T.
5. Census of patient population at end of year:						
White:						
Insane . . . . .	898	1,181	2,079	140	214	354
Epileptics . . . . .	—	—	—	—	—	—
Mental defectives . . . . .	—	—	—	—	—	—
Alcoholics . . . . .	—	—	—	—	—	—
Drug addicts . . . . .	—	—	—	—	—	—
Neurosyphilitics (without psychosis) . . . . .	—	—	—	—	—	—
All other cases . . . . .	—	—	—	—	—	—
Total . . . . .	898	1,181	2,079	140	214	354
Colored:						
Insane . . . . .	7	18	25	1	3	4
Epileptics . . . . .	—	—	—	—	—	—
Mental defectives . . . . .	—	—	—	—	—	—
Alcoholics . . . . .	—	—	—	—	—	—
Drug addicts . . . . .	—	—	—	—	—	—
Neurosyphilitics (without psychosis) . . . . .	—	—	—	—	—	—
All other cases . . . . .	—	—	—	—	—	—
Total . . . . .	7	18	25	1	3	4
Grand total . . . . .	905	1,199	2,104	141	217	358

	M.	F.	T.
6. Patients employed in industrial classes or in general hospital work on date of report . . . . .	542	529	1,071
7. Average daily number of all patients actually in institution during year . . . . .	909.74	1,180.01	2,089.75
8. Voluntary patients admitted during year . . . . .	—	—	—
9. Persons given advice or treatment in out patient clinics during year . . . . .	—	—	—

TABLE 2. — *Financial Statement.*

See treasurer's report for data requested under this table.

TABLE 3. — *Movement of Population for the Year ending September 30, 1923.*

	INSANE.			TEMPORARY CARE.			TOTAL.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books at beginning of institution year . . . . .	1,020	1,329	2,349	2	—	2	1,022	1,329	2,351
Admissions during the year:									
First admissions (including 1 man committed from temporary care of the preceding year) . . . . .	200	247	447	9	4	13	209	251	460
Readmissions . . . . .	56	76	132	9	12	21	65	88	153
Transferred from other institutions for mental diseases . . . . .	11	32	43	—	—	—	11	32	43
Total received during the year . . . . .	267	355	622	18	16	34	285	371	656
Total under treatment during the year . . . . .	1,287	1,684	2,971	20	16	36	1,307	1,700	3,007
Discharged from books during the year:									
As recovered . . . . .	22	19	41	—	4	4	22	23	45
As improved . . . . .	42	75	117	1	1	2	43	76	119
As unimproved . . . . .	20	17	37	6	4	10	26	21	47
As without psychosis . . . . .	2	1	3	8	5	13	10	6	16
Died during the year . . . . .	124	123	247	1	—	1	125	123	248
Transferred to other institutions for mental diseases . . . . .	34	35	69	—	—	—	34	35	69
Committed from temporary care . . . . .	—	—	—	1	—	1	1	—	1
Total discharged and died . . . . .	244	270	514	17	14	31	261	284	545
Patient's remaining on books at end of institution year . . . . .	1,043	1,414	2,457	3	2	5	1,046	1,416	2,462

TABLE 4. — *Nativity of First Admissions and of Parents of First Admissions for the Year ending Sept. 30, 1923.*

NATIVITY.	PATIENTS.			PARENTS OF MALE PATIENTS.			PARENTS OF FEMALE PATIENTS.		
	M.	F.	T.	F. <sup>1</sup>	M. <sup>2</sup>	Both	F. <sup>1</sup>	M. <sup>2</sup>	Both
United States . . . . .	108	107	215	41	37	34	47	42	40
Austria . . . . .	4	2	6	5	5	5	1	2	1
Belgium . . . . .	—	—	—	—	1	—	—	—	—
Canada <sup>3</sup> . . . . .	16	27	43	12	14	8	20	24	20
China . . . . .	—	1	1	—	—	—	1	1	1
England . . . . .	2	4	6	3	2	2	6	6	4
France . . . . .	—	—	—	—	—	—	—	—	—
Germany . . . . .	—	4	4	2	—	—	5	6	5
Greece . . . . .	2	—	2	2	2	2	—	—	—
Holland . . . . .	—	—	—	1	—	—	—	—	—
Ireland . . . . .	28	60	88	60	64	56	87	89	85
Italy . . . . .	17	17	34	16	16	16	18	17	17
Norway . . . . .	2	2	4	2	2	2	2	2	2
Poland . . . . .	4	5	9	2	2	2	4	4	4
Portugal . . . . .	3	—	3	2	2	2	—	—	—
Roumania . . . . .	—	—	—	—	—	—	1	1	1
Russia . . . . .	7	7	14	8	8	7	8	8	8
Scotland . . . . .	1	3	4	2	1	1	3	3	2
Spain . . . . .	—	1	1	—	—	—	1	1	1
Sweden . . . . .	4	5	9	4	4	4	6	6	6
Turkey in Asia . . . . .	2	2	4	1	1	1	2	2	2
Unascertained . . . . .	—	—	—	37	39	35	34	33	31
Total . . . . .	200	247	447	200	209	177	247	247	230

<sup>1</sup> Fathers.<sup>2</sup> Mothers.<sup>3</sup> Includes Newfoundland.TABLE 5. — *Citizenship of First Admissions for the Year ending Sept. 30, 1923.*

	M.	F.	T.
Citizens by birth . . . . .	108	107	215
Citizens by naturalization . . . . .	35	48	83
Aliens . . . . .	32	57	89
Citizenship unascertained . . . . .	25	35	60
Total . . . . .	200	247	447

TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1923.*

PSYCHOSES.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	4	—	4
2. Senile, total . . . . .	—	—	—	18	42	60
Simple deterioration . . . . .	17	16	33	—	—	—
Presbyophrenic type . . . . .	—	1	1	—	—	—
Delirious and confused states . . . . .	—	1	1	—	—	—
Depressed and agitated states in addition to deterioration . . . . .	—	3	3	—	—	—
Paranoid states in addition to deterioration . . . . .	—	20	20	—	—	—
Presenile types . . . . .	1	1	2	—	—	—
3. With cerebral arteriosclerosis . . . . .	—	—	—	27	43	70
4. General paralysis . . . . .	—	—	—	36	10	46
5. With cerebral syphilis . . . . .	—	—	—	3	2	5
6. With Huntington's chorea . . . . .	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	1	1
8. With other brain or nervous diseases, total . . . . .	—	—	—	2	4	6
Other diseases . . . . .	2	4	6	—	—	—
9. Alcoholic, total . . . . .	—	—	—	23	11	34
Pathological intoxication . . . . .	1	—	1	—	—	—
Delirium tremens . . . . .	1	—	1	—	—	—
Acute hallucinosis . . . . .	13	2	15	—	—	—
Acute paranoid type . . . . .	—	1	1	—	—	—
Korsakow's psychosis . . . . .	1	1	2	—	—	—
Chronic hallucinosis . . . . .	2	—	2	—	—	—
Chronic paranoid type . . . . .	1	1	2	—	—	—
Alcoholic deterioration . . . . .	3	6	9	—	—	—
Other types, acute or chronic . . . . .	1	—	1	—	—	—



TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1923* —  
Concluded.

PSYCHOSES.	M.			F.			T.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
10. Due to drugs and other exogenous toxins, total	.	.	.	-	3	3			
Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined	-	3	3	-	-	-			
11. With pellagra	.	.	.	11	13	24			
12. With other somatic diseases, total	.	.	.						
Exhaustion delirium	1	5	6						
Delirium of unknown origin	1	-	1						
Cardio-renal diseases	2	-	2						
Other diseases or conditions	7	8	15						
13. Manic-depressive psychoses, total	.	.	.	12	33	45			
Manic type	6	16	22						
Depressive type	6	14	20						
Stupor	-	2	2						
Mixed type	-	1	1						
14. Involution melancholia	.	.	.	5	5	10			
15. Dementia praecox, total	.	.	.	41	38	79			
Paranoid type	20	24	44						
Catatonic type	8	6	14						
Hebephrenic type	9	5	14						
Simple type	4	3	7						
16. Paranoia or paranoid conditions	.	.	.	5	26	31			
17. Epileptic psychoses, total	.	.	.	3	1	4			
Deterioration	2	-	2						
Clouded states	1	1	2						
18. Psychoneuroses and neuroses, total	.	.	.	1	1	2			
Psychasthenic type (anxiety and obsessive forms)	1	-	1						
Neurasthenic type	-	1	1						
19. With psychopathic personality	.	.	.	-	4	4			
20. With mental deficiency	.	.	.	6	3	9			
21. Undiagnosed psychoses	.	.	.	2	5	7			
22. Without psychosis, total	.	.	.	1	2	3			
Mental deficiency without psychosis	1	2	3						
Others	-	-	-						
Total	200	247	447						

TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1923.*

RACE.	TOTAL.			TRAUMATIC.			SENILE.			WITH CEREBRAL ARTERIO-SCLEROSIS.			GENERAL PARALYSIS.			WITH CEREBRAL SYPHILIS.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	8	19	27	-	-	-	-	4	4	1	6	7	2	2	4	1	-	1
Chinese	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English	8	31	39	1	-	1	-	2	2	-	2	2	1	2	3	-	-	-
French	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German	1	4	5	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Greek	2	-	2	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Hebrew	16	10	26	-	-	-	-	1	1	-	-	-	4	-	4	-	-	-
Irish	67	97	164	2	-	2	10	14	24	9	19	28	5	2	7	1	1	2
Italian <sup>1</sup>	17	19	36	-	-	-	-	1	3	4	1	3	4	1	5	-	-	-
Lithuanian	4	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magyar	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	6	8	14	-	-	-	-	1	1	2	-	2	1	-	1	-	-	-
Scotch	2	5	7	-	-	-	1	2	3	-	-	-	1	1	2	-	-	-
Slavonic <sup>3</sup>	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian	2	2	4	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Mixed	50	28	78	1	-	1	5	7	12	12	8	20	13	1	14	1	1	2
Race unascertained	12	15	27	-	-	-	1	8	9	2	4	6	3	1	4	-	-	-
Total	200	247	447	4	-	4	18	42	60	27	43	70	36	10	46	3	2	5

<sup>1</sup> Includes "North" and "South".<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1923 — Continued.*

RACE.	WITH HUNTING-TON'S CHOREA.			WITH BRAIN TUMOR.			WITH OTHER BRAIN OR NERVOUS DISEASES.			ALCOHOLIC.			DUE TO DRUGS AND OTHER EXOGENOUS TOXINS.			WITH PELLA GRA.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Chinese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English	-	-	-	-	-	-	-	-	-	2	-	2	-	2	2	-	-	-
French	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-
Irish	-	-	-	-	-	-	1	2	3	11	10	21	-	-	-	-	-	-
Italian <sup>1</sup>	-	-	-	-	-	-	-	1	1	2	-	2	-	-	-	-	-	-
Lithuanian	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Magyar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	-	-	-	-	1	1	-	-	-	1	-	1	-	-	-	-	-	-
Scotch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian	-	-	-	-	-	-	-	-	-	4	1	5	-	1	1	-	-	-
Mixed	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Race unascertained	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	1	1	2	4	6	23	11	34	-	3	3	-	-	-

<sup>1</sup> Includes "North" and "South".<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1923 — Continued.*

RACE.	WITH OTHER SOMATIC DISEASES.			MANIC-DEPRESSIVE.			INVOLUTION MELANCHOLIA.			DEMENTIA PRAECOX.			PARANOIA OR PARANOID CONDITIONS.			EPILEPTIC PSYCHOSES.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	2	1	3	-	1	1	-	-	-	1	2	3	-	3	3	-	-	-
Chinese	-	-	-	-	1	1	-	-	-	1	-	1	-	-	-	-	-	-
Dutch and Flemish	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
English	1	6	7	1	5	6	1	1	2	-	8	8	-	2	2	-	-	-
French	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
German	-	1	1	-	1	1	-	2	2	-	-	-	-	-	-	-	-	-
Greek	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Hebrew	1	1	2	2	2	4	-	-	-	7	1	8	-	1	1	-	-	-
Irish	2	3	5	3	11	14	2	2	4	13	15	28	3	13	16	1	1	1
Italian <sup>1</sup>	1	-	1	2	4	6	-	-	-	3	3	6	-	3	3	2	-	2
Lithuanian	-	-	-	-	-	-	1	-	1	2	2	4	-	1	1	-	-	-
Magyar	1	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	-	1	1	1	2	3	-	-	-	2	2	-	1	-	1	-	-	-
Scotch	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup>	-	-	-	-	1	1	-	-	-	1	1	2	-	-	-	-	-	-
Spanish	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Syrian	-	-	-	1	-	1	-	-	-	1	1	2	-	-	-	-	-	-
Mixed	2	-	2	1	1	2	1	-	1	7	2	9	1	3	4	1	-	1
Race unascertained	1	-	1	1	2	3	-	-	-	3	-	3	-	-	-	-	-	-
Total	11	13	24	12	33	45	5	5	10	41	38	79	5	26	31	3	1	4

<sup>1</sup> Includes "North" and "South".<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1923 — Concluded.*

RACE.	PSYCHO-NEUROSES AND NEUROSES.			WITH PSYCHOPATHIC PERSONALITY.			WITH MENTAL DEFICIENCY.			UNDIAGNOSED PSYCHOSES.			WITHOUT PSYCHOSIS.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chinese . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English . . . . .	-	-	-	-	1	1	1	-	1	-	-	-	-	-	-
French . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greek . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew . . . . .	-	-	-	-	-	-	1	1	2	-	1	1	-	1	1
Irish . . . . .	1	-	1	-	1	1	3	1	4	1	2	3	-	1	-
Italian <sup>1</sup> . . . . .	-	-	-	-	-	-	1	-	1	-	-	-	-	1	1
Lithuanian . . . . .	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Magyar . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese . . . . .	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Scandinavian <sup>2</sup> . . . . .	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Scotch . . . . .	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup> . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed . . . . .	-	1	1	-	-	-	-	1	1	-	1	1	1	-	1
Race unascertained . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	1	1	2	-	4	4	6	3	9	2	5	7	1	2	3

<sup>1</sup> Includes "North" and "South".<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.TABLE 8. — *Age of First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1923.*

PSYCHOSES.	TOTAL.			UNDER 15 YEARS.			15-19 YEARS.			20-24 YEARS.			25-29 YEARS.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	4	-	4	-	-	-	-	-	-	-	-	-	1	-	1
2. Senile . . . . .	18	42	60	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	27	43	70	-	-	-	-	-	-	-	-	-	1	1	1
4. General paralysis . . . . .	36	10	46	-	-	-	-	-	-	-	-	-	2	-	2
5. With cerebral syphilis . . . . .	3	2	5	-	-	-	-	-	-	1	-	1	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	23	11	34	-	-	-	-	-	-	1	-	1	1	-	1
10. Due to drugs and other exogenous toxins . . . . .	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	11	13	24	-	-	-	-	-	-	-	-	-	1	2	3
13. Manic-depressive . . . . .	12	33	45	-	-	-	2	4	6	-	4	4	2	6	8
14. Involution melancholia . . . . .	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	41	38	79	-	-	-	3	1	4	9	1	10	8	4	12
16. Paranoia or paranoid conditions . . . . .	5	26	31	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	6	3	9	-	-	-	1	1	2	-	2	1	1	1	2
21. Undiagnosed psychoses . . . . .	2	5	7	-	-	-	-	-	-	1	1	2	-	-	-
22. Without psychosis . . . . .	1	2	3	-	-	-	-	-	-	-	1	1	1	-	1
Total . . . . .	200	247	447	-	-	-	5	6	11	14	7	21	17	14	31

TABLE 8. — *Age of First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1923 — Continued.*

PSYCHOSES.	30-34 YEARS.			35-39 YEARS.			40-44 YEARS.			45-49 YEARS.			50-54 YEARS.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	1	1	-	-	-	1	-	1	2	4	6
4. General paralysis . . . . .	1	-	1	7	1	8	5	3	8	7	1	8	4	2	6
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	2	-	2	-	-	-	-	1	1
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	-	-	-	1	1	2	-	1	1
9. Alcoholic . . . . .	3	2	5	2	-	2	6	3	9	1	4	5	6	-	6
10. Due to drugs and other exogenous toxins . . . . .	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	3	3	-	5	5	1	-	1	-	1	1	-	-	-
13. Manic-depressive . . . . .	-	5	5	3	2	5	-	5	5	2	3	5	1	2	3
14. Involution melancholia . . . . .	-	-	-	-	-	-	1	-	1	1	2	3	-	2	2
15. Dementia praecox . . . . .	9	8	17	8	10	18	1	5	6	-	4	4	2	2	4
16. Paranoia or paranoid conditions . . . . .	-	-	-	3	3	-	6	6	2	4	6	2	6	8	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	2	-	2	-	-	-	1	-	1
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
19. With psychopathic personality . . . . .	-	-	-	1	1	-	1	1	-	-	-	-	2	2	-
20. With mental deficiency . . . . .	-	1	1	1	-	1	-	-	-	1	-	1	1	-	1
21. Undiagnosed psychoses . . . . .	-	-	-	1	1	1	1	1	-	1	1	1	1	-	1
22. Without psychosis . . . . .	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-
Total . . . . .	13	20	33	21	24	45	18	26	44	18	21	39	20	22	42

TABLE 8. — *Age of First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1923 — Concluded.*

PSYCHOSES.	55-59 YEARS.			60-64 YEARS.			65-69 YEARS.			70 YEARS AND OVER.			UNASCERTAINED.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	1	-	1	1	-	1	-	-	-	-	-	-
2. Senile . . . . .	1	2	3	1	1	2	3	7	10	13	32	45	-	-	-
3. With cerebral arteriosclerosis . . . . .	3	2	5	4	6	10	8	6	14	9	23	32	-	-	-
4. General paralysis . . . . .	5	1	6	4	1	5	-	1	1	1	-	1	-	-	-
5. With cerebral syphilis . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	1	1	-	-	-	-	-	-	1	1	2	-	-	-
9. Alcoholic . . . . .	2	2	4	1	-	1	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	3	1	4	1	1	2	1	-	1	4	-	4	-	-	-
13. Manic-depressive . . . . .	1	1	2	1	-	1	-	1	1	-	-	-	-	-	-
14. Involution melancholia . . . . .	2	1	3	1	-	1	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	1	1	1	2	3	-	-	-	-	-	-	-	-	-
16. Paranoia or paranoid conditions . . . . .	1	3	4	-	3	3	1	1	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	18	17	35	15	16	31	13	17	30	28	57	85	-	-	-

TABLE 9. — Degree of Education of First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1923.

PSYCHOSES.	TOTAL.			ILLITERATE.			READS AND WRITES.			COMMON SCHOOL.			HIGH SCHOOL.			COLLEGE.			UNASCRIBED.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	4	—	4	—	—	—	2	6	8	4	—	4	2	—	—	—	—	—	—	4	—
2. Senile . . . . .	18	42	60	1	10	11	2	10	12	20	9	20	1	3	5	—	—	—	—	4	3
3. With cerebral arteriosclerosis . . . . .	27	43	70	2	12	14	3	1	4	37	16	21	1	1	2	—	—	—	—	1	4
4. General paralysis . . . . .	36	10	46	1	1	2	—	—	—	23	7	30	4	—	4	3	—	—	2	2	1
5. With cerebral syphilis . . . . .	3	2	5	—	—	—	—	—	—	3	2	5	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	2	4	6	—	1	1	5	2	7	1	2	3	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	23	11	34	2	2	4	—	—	—	11	7	18	4	—	4	—	—	—	1	1	—
10. Due to drugs and other exogenous toxins . . . . .	—	3	3	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	11	13	24	—	1	1	3	2	5	5	8	13	1	2	3	1	1	—	—	—	—
13. Manic-depressive . . . . .	12	33	45	1	2	3	2	1	3	6	21	27	2	8	10	1	1	—	—	—	—
14. Involution melancholia . . . . .	5	5	10	—	—	—	1	1	1	4	5	9	4	—	—	1	2	—	—	—	—
15. Dementia praecox . . . . .	41	38	79	1	6	7	5	3	8	25	24	49	9	2	11	1	—	—	—	—	—
16. Paranoia or paranoid conditions . . . . .	5	26	31	2	2	2	1	1	1	3	18	21	1	4	5	1	1	—	—	2	2
17. Epileptic psychoses . . . . .	3	1	4	—	—	—	—	—	—	2	1	3	1	1	1	—	—	—	—	1	1
18. Psychoneuroses and neuroses . . . . .	1	1	2	—	—	—	—	—	—	1	1	1	1	3	3	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	6	3	9	1	—	—	—	2	2	5	1	6	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	2	5	7	—	—	—	1	3	3	—	3	3	1	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	1	2	3	—	1	1	—	1	1	1	—	1	—	—	—	—	—	—	—	—	—
Total . . . . .	200	247	447	9	38	47	25	32	57	124	139	263	26	24	50	6	2	8	10	12	22

TABLE 10. — *Environment of First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1923.*

PSYCHOSES.	TOTAL.			URBAN.			RURAL.			UNASCERTAINED.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	4	-	4	4	-	4	-	-	-	-	-	-
2. Senile . . . . .	18	42	60	18	42	60	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	27	43	70	27	43	70	-	-	-	-	-	-
4. General paralysis . . . . .	36	10	46	36	10	46	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	3	2	5	3	2	5	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	1	1	-	1	1	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	2	4	6	2	4	6	-	-	-	-	-	-
9. Alcoholic . . . . .	23	11	34	23	11	34	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	3	3	-	3	3	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	11	13	24	11	13	24	-	-	-	-	-	-
13. Manic-depressive . . . . .	12	33	45	12	33	45	-	-	-	-	-	-
14. Involution melancholia . . . . .	5	5	10	5	5	10	-	-	-	-	-	-
15. Dementia praeox . . . . .	41	38	79	41	38	79	-	-	-	-	-	-
16. Paranoia or paranoid conditions . . . . .	5	26	31	5	26	31	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	3	1	4	3	1	4	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	1	1	2	1	1	2	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	4	4	-	4	4	-	-	-	-	-	-
20. With mental deficiency . . . . .	6	3	9	6	3	9	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	2	5	7	2	5	7	-	-	-	-	-	-
22. Without psychosis . . . . .	1	2	3	1	2	3	-	-	-	-	-	-
Total . . . . .	200	247	447	200	247	447	-	-	-	-	-	-

TABLE 11. — *Economic Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1923.*

PSYCHOSES.	TOTAL.			DE- PENDENT.			MARGINAL.			COMFORT- ABLE.			UNASCERTAINED.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	4	-	4	2	-	2	2	-	2	-	-	-	-	-	-
2. Senile . . . . .	18	42	60	10	12	22	3	12	15	1	4	5	4	14	18
3. With cerebral arteriosclerosis . . . . .	27	43	70	14	11	25	8	20	28	2	3	5	3	9	12
4. General paralysis . . . . .	36	10	46	3	1	4	27	4	31	2	3	5	4	2	6
5. With cerebral syphilis . . . . .	3	2	5	-	-	-	3	2	5	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1
8. With other brain or nervous diseases . . . . .	2	4	6	2	1	3	-	1	1	-	1	1	-	1	1
9. Alcoholic . . . . .	23	11	34	3	1	4	19	8	27	-	-	-	1	2	3
10. Due to drugs and other exogenous toxins . . . . .	-	3	3	-	1	1	-	1	1	-	1	1	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	11	13	24	2	1	3	3	8	11	2	2	4	4	2	6
13. Manic-depressive . . . . .	12	33	45	3	-	3	8	25	33	-	4	4	1	4	5
14. Involution melancholia . . . . .	5	5	10	-	-	-	4	5	9	-	-	-	1	-	1
15. Dementia praeox . . . . .	41	38	79	21	5	26	18	29	47	1	1	2	1	3	4
16. Paranoia or paranoid conditions . . . . .	5	26	31	2	-	2	2	20	22	1	4	5	-	2	2
17. Epileptic psychoses . . . . .	3	1	4	-	-	-	-	2	2	-	-	-	1	1	2
18. Psychoneuroses and neuroses . . . . .	1	1	2	-	-	-	-	1	-	-	1	1	-	-	-
19. With psychopathic personality . . . . .	-	4	4	-	-	-	-	4	4	-	-	-	-	-	-
20. With mental deficiency . . . . .	6	3	9	3	-	3	2	2	4	-	-	-	1	1	2
21. Undiagnosed psychoses . . . . .	2	5	7	1	-	1	1	4	5	-	-	-	-	1	1
22. Without psychosis . . . . .	1	2	3	-	1	1	1	1	2	-	-	-	-	-	-
Total . . . . .	200	247	447	66	34	100	104	146	250	9	24	33	21	43	64

TABLE 12. — *Use of Alcohol by First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1923.*

PSYCHOSES.	TOTAL.			ABSTINENT.			TEM- PERATE.			INTER- PERATE.			UNASCER- TAINED.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	4	-	4	1	-	1	2	-	2	1	-	1	-	-	-
2. Senile . . . . .	18	42	60	2	23	25	7	11	18	3	1	4	6	7	13
3. With cerebral arteriosclerosis . . . . .	27	43	70	7	19	26	8	18	26	8	6	14	4	-	4
4. General paralysis . . . . .	36	10	46	6	2	8	22	4	26	6	1	7	2	3	5
5. With cerebral syphilis . . . . .	3	2	5	1	1	2	2	-	2	-	1	1	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
8. With other brain or nervous dis- eases . . . . .	2	4	6	1	1	2	-	1	1	1	1	2	-	1	1
9. Alcoholic . . . . .	23	11	34	-	-	-	1	2	3	21	8	29	1	1	2
10. Due to drugs and other exogenous toxins . . . . .	-	3	3	-	-	-	-	1	1	-	-	-	-	2	2
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	11	13	24	3	12	15	4	1	5	4	-	4	-	-	-
13. Manic-depressive . . . . .	12	33	45	2	18	20	6	1	7	3	2	5	1	12	13
14. Involution melancholia . . . . .	5	5	10	3	3	6	1	2	3	1	-	1	-	-	-
15. Dementia praecox . . . . .	41	38	79	19	21	40	13	5	18	7	-	7	2	12	14
16. Paranoia or paranoid conditions . . . . .	5	26	31	1	16	17	2	5	7	2	-	2	-	5	5
17. Epileptic psychoses . . . . .	3	1	4	-	-	-	2	1	3	-	-	-	1	-	1
18. Psychoneuroses and neuroses . . . . .	1	1	2	-	1	1	-	-	-	1	-	1	-	-	-
19. With psychopathic personality . . . . .	-	4	4	-	3	3	-	-	-	-	-	-	-	1	1
20. With mental deficiency . . . . .	6	3	9	4	2	6	2	-	2	-	-	-	-	1	1
21. Undiagnosed psychoses . . . . .	2	5	7	1	1	2	-	1	1	1	-	1	-	3	3
22. Without psychosis . . . . .	1	2	3	1	-	1	-	1	1	-	-	-	-	1	1
Total . . . . .	200	247	447	52	123	175	72	55	127	59	20	79	17	49	66

TABLE 13. — *Marital Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending September 30, 1922.*

PSYCHOSES.	TOTAL.			SINGLE.			MARRIED.			WIDOWED.			SEPARATED.			DIVORCED.			UNASCE- TAINED.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	4	-	4	2	-	2	1	3	1	1	-	1	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	18	42	60	3	7	10	1	9	9	11	28	39	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	27	43	70	9	10	19	8	11	19	10	22	32	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	36	10	46	7	-	7	27	6	33	1	4	5	1	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	3	2	5	-	-	-	8	1	4	1	1	1	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	2	4	6	-	-	-	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	23	11	34	12	2	14	8	9	17	3	-	3	-	-	-	1	-	-	1	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	3	3	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	11	13	24	2	2	4	6	8	14	3	3	6	-	-	-	-	-	-	-	-	-
13. Manic-depressive . . . . .	12	33	45	3	13	16	8	17	25	1	2	3	-	-	-	-	-	-	-	-	-
14. Involution melancholia . . . . .	5	5	10	2	1	3	3	12	5	1	3	2	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	41	38	79	36	19	55	4	16	20	1	3	4	-	-	-	-	-	-	-	-	-
16. Paranoia or paranoid conditions . . . . .	5	26	31	2	8	10	3	9	12	-	-	8	-	-	-	1	-	-	-	-	-
17. Epileptic psychoses . . . . .	3	1	4	1	1	2	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	1	1	2	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	6	3	5	3	8	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	2	5	1	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	2	5	7	1	1	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	1	2	3	1	-	1	-	2	5	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	200	247	447	86	72	158	73	97	175	31	73	104	1	2	3	2	3	5	2	-	2



TABLE 14. — *Psychoses of Readmissions for the Year ending September 30, 1923.*

PSYCHOSES.	M.	F.	T.
1. Traumatic psychoses . . . . .	-	-	-
2. Senile psychoses . . . . .	3	3	6
3. Psychoses with cerebral arteriosclerosis . . . . .	2	5	7
4. General paralysis . . . . .	7	-	7
5. Psychoses with cerebral syphilis . . . . .	3	-	3
6. Psychoses with Huntington's chorea . . . . .	-	-	-
7. Psychoses with brain tumor . . . . .	-	-	-
8. Psychoses with other brain or nervous diseases . . . . .	-	-	-
9. Alcoholic psychoses . . . . .	2	1	3
10. Psychoses due to drugs and other exogenous toxins . . . . .	-	1	1
11. Psychoses with pellagra . . . . .	-	-	-
12. Psychoses with other somatic diseases . . . . .	-	-	-
13. Manic-depressive psychoses . . . . .	14	29	43
14. Involution melancholia . . . . .	1	-	1
15. Dementia praecox . . . . .	16	21	37
16. Paranoia or paranoid conditions . . . . .	2	7	9
17. Epileptic psychoses . . . . .	-	1	1
18. Psychoneuroses and neuroses . . . . .	1	1	2
19. Psychoses with psychopathic personality . . . . .	1	1	2
20. Psychoses with mental deficiency . . . . .	3	3	6
21. Undiagnosed psychoses . . . . .	1	2	3
22. Without psychosis . . . . .	-	1	1
Total . . . . .	56	76	132

TABLE 15. — *Discharges of Patients classified with Reference to Principal Psychoses and Condition on Discharge for the Year ending September 30, 1923.*

PSYCHOSES.	TOTAL.			RECOVERED.			IMPROVED.			UNIMPROVED.			WITHOUT PSYCHOSIS.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	5	5	-	-	-	-	2	2	-	3	3	-	-	-
3. With cerebral arteriosclerosis . . . . .	3	4	7	-	-	-	3	2	5	-	2	2	-	-	-
4. General paralysis . . . . .	4	2	6	-	-	-	2	1	3	2	1	3	-	-	-
5. With cerebral syphilis . . . . .	2	-	2	-	-	-	1	-	1	1	-	1	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	16	6	22	7	-	7	8	5	13	1	1	2	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	4	3	7	3	-	3	1	2	3	-	1	1	-	-	-
13. Manic-depressive . . . . .	18	47	65	9	17	26	9	24	33	-	6	6	-	-	-
14. Involution melancholia . . . . .	-	2	2	-	1	1	-	1	1	-	-	-	-	-	-
15. Dementia praecox . . . . .	27	20	47	-	-	-	13	17	30	14	3	17	-	-	-
16. Paranoia or paranoid conditions . . . . .	1	10	11	-	-	-	1	10	11	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	2	6	8	1	-	1	1	6	7	-	-	-	-	-	-
20. With mental deficiency . . . . .	7	3	10	2	-	2	3	3	6	2	-	2	-	-	-
21. Undiagnosed psychoses . . . . .	-	2	2	-	-	-	-	2	2	-	-	-	-	-	-
22. Without psychosis . . . . .	2	1	3	-	-	-	-	-	-	-	-	-	2	1	3
Total . . . . .	86	112	198	22	19	41	42	75	117	20	17	37	2	1	3

TABLE 16. — *Causes of Death of Patients classified with Reference to Principal Psychoses, for the Year ending September 30, 1923.*

CAUSES OF DEATH.	TOTAL.			SENILE.			WITH CEREBRAL ARTERIO-SCLEROSIS.			GENERAL PARALYSIS.			ALCOHOLIC.			MANIC-DEPRESSIVE.			INVOLUTION MELANCHOLIA.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>General Diseases.</i>																					
Erysipelas . . . . .	2	1	3	-	-	-	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-
Septicemia . . . . .	12	16	28	-	-	-	-	-	-	2	2	2	-	-	-	-	3	3	-	1	1
Tuberculosis of lungs . . . . .	5	2	7	-	-	-	-	2	1	-	-	-	1	2	3	-	-	-	-	-	-
Cancer . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Diabetes . . . . .	5	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other general diseases . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nervous System.</i>																					
Apoplexy (cerebral hemorrhage) . . . . .	3	1	4	-	-	-	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-
General paralysis of insane . . . . .	18	7	25	-	-	-	-	-	-	18	7	25	-	-	-	-	-	-	-	-	-
Exhaustion from other mental diseases . . . . .	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brain tumor . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Circulatory System.</i>																					
Endocarditis and myocarditis . . . . .	23	15	38	4	2	6	6	6	12	4	-	4	3	2	5	1	2	2	-	2	2
Other diseases of the heart . . . . .	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arteriosclerosis . . . . .	10	19	29	5	6	11	5	13	18	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of circulatory system . . . . .	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Respiratory System.</i>																					
Bronchitis . . . . .	2	2	4	3	1	4	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-
Bronchopneumonia . . . . .	27	28	55	3	6	9	5	11	16	13	1	14	3	1	4	2	2	2	2	2	4
Lobar pneumonia . . . . .	7	4	11	1	3	4	2	1	3	1	-	1	-	-	-	-	-	-	-	-	-
Pleurisy . . . . .	1	-	1	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of the respiratory system . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Digestive System.</i>																					
Diarrhea and enteritis . . . . .	-	5	5	-	2	2	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Hernia and intestinal obstruction . . . . .	1	1	2	-	1	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Cirrhosis of liver . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of digestive system (cancer and tuberculosis excepted) . . . . .	2	1	3	-	-	-	-	-	-	1	-	1	1	1	2	-	-	-	-	-	-
<i>Genito-urinary System.</i>																					
Chronic nephritis . . . . .	8	2	10	2	-	2	2	2	-	-	1	1	-	-	-	-	-	-	1	-	1
Other diseases of kidneys and annexa . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diseases of bladder . . . . .	-	3	3	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of genito-urinary system . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Skin.</i>																					
Gangrene . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	124	123	247	17	24	41	23	36	59	42	10	52	9	6	15	1	11	12	6	3	9

TABLE 16. — Causes of Death of Patients classified with Reference to Principal Psychoses for the Year ending September 30, 1923 — Concluded.

CAUSES OF DEATH.	DEMENTIA PRAECOX.			PARANOID OR PARANOID CONDITIONS.			EPILEPTIC PSYCHOSES.			PSYCHO- NEUROSES AND NEUROSES.			WITH PSYCHO- PATHIC PERSONALITY.			WITH MENTAL DEFICIENCY.			ALL OTHER PSYCHOSES. <sup>1</sup>		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>General Diseases.</i>																					
Erysipelas . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Septicemia . . . . .	—	9	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis of lungs . . . . .	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cancer . . . . .	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diabetes . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other general diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Nervous System.</i>																					
Apoplexy (cerebral hemorrhage) . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General paralysis of insane . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exhaustion from other mental diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Circulatory System.</i>																					
Endocarditis and myocarditis . . . . .	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of the heart . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arteriosclerosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of circulatory system . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Respiratory System.</i>																					
Bronchitis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bronchopneumonia . . . . .	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lobar pneumonia . . . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pleurisy . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of the respiratory system . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Digestive System.</i>																					
Diarrhea and enteritis . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hernia and intestinal obstruction . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cirrhosis of liver . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of digestive system (cancer and tuberculosis excepted) . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Genito-urinary System.</i>																					
Chronic nephritis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of kidneys and annexa . . . . .	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diseases of bladder . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of genito-urinary system . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Skin.</i>																					
Gangrene . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	12	17	29	1	3	4	1	1	2	—	1	1	—	—	—	1	1	2	11	10	21

<sup>1</sup> Includes group 22 "without psychosis."

TABLE 17. — Age of Patients at Time of Death classified with Reference to Principal Psychoses for the Year ending September 30, 1923.

PSYCHOSES.	TOTAL.			UNDER 15 YEARS.			15-19 YEARS.			20-24 YEARS.			25-29 YEARS.			30-34 YEARS.			35-39 YEARS.			40-44 YEARS.		
	M.		T.	M.		T.	M.		T.	M.		T.	M.		T.	M.		T.	M.		T.	M.		T.
	F.	T.		F.	T.		F.	T.		F.	T.		F.	T.		F.	T.		F.	T.		F.	T.	
1. Traumatic . . . . .	17	24	41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	23	36	59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	42	10	52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	9	6	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	8	8	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	11	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive . . . . .	6	3	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14. Involution melancholia . . . . .	12	17	29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
16. Dementia or paranoid conditions . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	134	123	247	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
				—	—	—	1	1	—	—	—	—	4	2	6	7	6	13	3	6	9	20	8	28

TABLE 17. — Age of Patients at Time of Death classified with Reference to Principal Psychoses for the Year ending September 30, 1923 —  
Concluded.

PSYCHOSES.	45-49 YEARS.			50-54 YEARS.			55-59 YEARS.			60-64 YEARS.			65-69 YEARS.			70 YEARS AND OVER.			UNASCERTAINED.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	10	2	12	6	1	7	4	2	6	2	4	3	2	3	9	14	20	34	-	-	-
5. With cerebral syphilis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	1	2	3	2	1	3	2	2	4	-	-	-	1	-	1	-	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive . . . . .	-	4	4	-	-	-	-	1	3	1	2	3	-	1	1	4	-	-	-	-	-
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	1	5	6	1	1	2	2	2	2	1	2	3	-	1	1	-	-	-	-	-	-
16. Paranoia or paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	14	13	27	10	12	22	16	10	26	7	12	19	14	6	20	29	47	76	-	-	-

TABLE 18. — *Total Duration of Hospital Life of Patients dying in Hospital classified according to Principal Psychoses for the Year ending September 30, 1923.*

PSYCHOSES.	TOTAL.			LESS THAN 1 MONTH.			1-3 MONTHS.			4-7 MONTHS.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	17	24	41	2	5	7	5	5	10	1	-	1
3. With cerebral arteriosclerosis . . . . .	23	36	59	7	8	15	5	11	16	4	7	11
4. General paralysis . . . . .	42	10	52	9	4	13	3	1	4	7	2	9
5. With cerebral syphilis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	1	1	-	-	-	-	1	1	-	-	-
8. With other brain or nervous diseases . . . . .	2	1	3	1	1	2	-	-	-	-	-	-
9. Alcoholic . . . . .	9	6	15	1	2	3	1	-	1	2	-	2
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	8	8	16	4	7	11	4	1	5	-	-	-
13. Manic-depressive . . . . .	1	11	12	-	5	5	-	-	-	-	2	2
14. Involution melancholia . . . . .	6	3	9	-	-	-	1	1	2	3	1	4
15. Dementia praecox . . . . .	12	17	29	-	1	1	-	2	2	-	-	-
16. Paranoia or paranoid conditions . . . . .	1	3	4	-	-	-	-	-	-	-	1	1
17. Epileptic psychoses . . . . .	1	1	2	-	1	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	1	1	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	1	1	2	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	124	123	247	24	34	58	19	22	41	17	13	30

TABLE 18. — *Total Duration of Hospital Life of Patients dying in Hospital classified according to Principal Psychoses for the Year ending September 30, 1923*  
— Continued.

PSYCHOSES.	8-12 MONTHS.			1-2 YEARS.			3-4 YEARS.			5-10 YEARS.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	4	4	6	5	11	2	1	3	1	3	4
3. With cerebral arteriosclerosis . . . . .	-	1	1	1	4	5	-	3	3	5	1	6
4. General paralysis . . . . .	7	-	7	12	2	14	3	1	4	1	-	1
5. With cerebral syphilis . . . . .	-	-	-	1	-	1	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	1	-	1	-	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	2	2	4	-	1	1	2	1	3
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive . . . . .	-	-	-	1	1	2	-	2	2	-	1	1
14. Involution melancholia . . . . .	-	1	1	1	-	1	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	-	-	1	4	5	5	2	7	4	6	10
16. Paranoia or paranoid conditions . . . . .	-	-	-	1	1	1	-	-	-	1	1	2
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	1	-	1
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	1	1	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	1	1	2	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	7	6	13	27	20	47	10	11	21	15	13	28

TABLE 18. — *Total Duration of Hospital Life of Patients dying in Hospital classified according to Principal Psychoses for the Year ending September 30, 1923*  
— Concluded.

PSYCHOSES.	10-15 YEARS.			15-20 YEARS.			20 YEARS AND OVER.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	1	1	-	-	-
3. With cerebral arteriosclerosis . . . . .	1	1	2	-	-	-	-	-	-
4. General paralysis . . . . .	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	1	-	1	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	-	-	-	-	-	-	-	-
13. Manic-depressive . . . . .	-	-	-	-	-	-	-	-	-
14. Involution melancholia . . . . .	1	-	1	-	-	-	-	-	-
15. Dementia praecox . . . . .	2	1	3	-	1	1	-	-	-
16. Paranoia or paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-
Total . . . . .	5	2	7	-	2	2	-	-	-

TABLE 19. — *Family Care Department, Year ending September 30, 1923.*

	M.	F.	T.
Remaining in Family Care Sept. 30, 1922 . . . . .	1	13	14
Admitted within the year . . . . .	-	7	7
Nominally admitted from visit during the year . . . . .	-	-	-
Whole number of cases within the year . . . . .	1	20	21
Dismissed within the year . . . . .	-	11	11
Returned to institution . . . . .	-	8	8
Discharged . . . . .	-	3	3
On visit . . . . .	-	-	-
Remaining September 30, 1923 . . . . .	1	9	10
Supported by state . . . . .	-	5	5
Private . . . . .	1	3	4
Self-supporting . . . . .	-	1	1
Number of different persons within the year . . . . .	1	20	21
Number of different persons admitted . . . . .	-	7	7
Number of different persons discharged . . . . .	-	11	11
Average daily number . . . . .	1.00	12.36	13.36
State . . . . .	-	7.13	7.13
Reimbursing . . . . .	-	-	-
Self-supporting . . . . .	-	1.23	1.23
Private . . . . .	1.00	4.00	5.00









MASS.  
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*The Commonwealth of Massachusetts.*

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1924

---

THE EIGHTY-FOURTH ANNUAL REPORT OF THE HOSPITAL

FOUNDED IN 1839 BY THE CITY OF BOSTON



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## The Commonwealth of Massachusetts.

### TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council.*

The trustees of the Boston State Hospital have the honor to submit herewith their sixteenth annual report.

#### PERSONS UNDER THE CARE OF THE TRUSTEES.

On December 1, 1923, there were 2,124 patients in the hospital, 12 in private care, and 350 on visit or escape, a total of 2,486 persons under the care of the Board. On November 30, 1924, the total number was 2,442, of whom 2,087 were in the hospital, 11 in private care, and 344 on visit or escape.

#### PERSONNEL OF THE BOARD.

The only change in the membership of the Board was the appointment in February of Mr. J. Waldo Pond to succeed Mr. John A. Kiggen, whose term had expired.

## CONSTRUCTION AND IMPROVEMENTS.

The superintendent's house, for which an appropriation of \$15,000 was made in 1923, has been completed and is occupied. The only special appropriation made in 1924 was the sum of \$4,400 for fire protection.

## IMPROVEMENTS RECOMMENDED.

The following appropriations for additions and improvements have been recommended to the Department of Mental Diseases:—

Administration building and staff quarters . . . . .	\$180,000.00
Extensions to sewer, water and steam lines . . . . .	13,000.00
Purchase of land . . . . .	30,000.00
Concrete pavement in front of power house . . . . .	10,000.00
Cottage for farm employees . . . . .	30,000.00
Concrete platform for coal storage . . . . .	6,000.00
Addition to garage . . . . .	4,200.00

All these items have been repeatedly recommended for several years, and the need for them becomes more urgent each year. They are explained in detail in the report of the superintendent. The building now used for administration besides being inadequate is a serious fire risk, and this danger has been emphasized the past year by an incipient fire in one of the older buildings. The house now occupied by farm employees has been repeatedly condemned by the state inspectors. We lose each year a quantity of coal by its being placed on soft, muddy ground, and the heavy trucks are constantly destroying the road in front of the power house. It is hoped that a sufficient sum to cover all these needs may be appropriated at the coming session.

## ESTIMATES FOR MAINTENANCE.

The following are the estimates for the amount needed for maintenance for the coming year, based, as usual, on the established salary scales and the per capita allowances:—

Personal services . . . . .	\$393,903.89
Religious instruction . . . . .	2,080.00
Travel, transportation, etc. . . . .	6,755.00
Food . . . . .	197,978.86
Clothing and material . . . . .	30,650.00
Furnishings and household supplies . . . . .	49,600.00
Medical and general care . . . . .	28,950.00
Heat, light and power . . . . .	67,892.99
Farm . . . . .	7,191.27
Garage, stable and grounds . . . . .	6,076.20
Repairs, ordinary . . . . .	17,430.00
Repairs and renewals . . . . .	24,910.00
Total . . . . .	\$833,418.21

These estimates are based on an expected population of 2,150. The appropriation for personal service for 1924 was \$73,984.00, less than the amount estimated, and the estimate was based on the number of employees authorized and the salaries and wages fixed by the Department of Administration and Finance. The diminution in the appropriation was based on the expectation that there would be a number of vacancies that could not be filled. While this has proved true to some extent, we have been obliged to refrain from accepting candidates for positions because of lack of funds, and have nevertheless been forced to exceed the appropriation for personal services by \$17,736.11. While this is made up partly by an allowance from a special appropriation placed at the disposal of the Department of Mental Diseases, there would even then have been a deficit had not the cost of food been less than was estimated, a condition which in another year might be reversed.

The trustees feel that this policy of making an inadequate appropriation for personal services is unwise and unbusinesslike and unduly hampers the administration of the hospitals. The number of employees authorized represents not the ideal standard but the standard which the Commonwealth establishes with a view to its resources. It is already lower than in some of the neighboring states and not higher than the average. Any diminution means less care and supervision, and consequently more accidents, less freedom for occupation and more destruction of property. Whatever quota is fixed, the appropriation should be sufficient to hire that number. If there are vacancies, the money cannot be used for any other purpose and will remain in the state treasury and be available for the budget of the succeeding year. Moreover, if by a diminished appropriation the hospital must maintain vacancies which could be filled, these vacancies will be largely in the ward service, and these affect directly the welfare of the patients. Most of the other positions, including the salaried positions, must be kept filled in order to carry on the hospital. There ought to be no vacancies, and there certainly would be fewer if the compensation, hours of duty and living conditions could be made more favorable.

The annexed reports of the various officers of the hospital give in detail the operations of the year and the financial statistics.

HENRY LEFAVOUR.  
 KATHERINE G. DEVINE.  
 WILLIAM F. WHITEMORE.  
 CHARLES B. FROTHINGHAM.

EDNA W. DREYFUS.  
 DAVID M. WATCHMAKER.  
 J. WALDO POND.

*Trustees.*

NOVEMBER 30, 1924.

## SUPERINTENDENT'S REPORT

*To the Board of Trustees of the Boston State Hospital.*

The following is a report of the activities of the hospital for the statistical year ending Sept. 30, 1924, and the fiscal year ending Nov. 30, 1924. Founded by the city of Boston in 1839, this marks the completion of the eighty-fifth year of the institution as a hospital for mental diseases and the sixteenth year of its history as a State hospital.

### MOVEMENT OF POPULATION.

The census of the hospital on Sept. 30, 1923, was as follows: in the wards, men, 905, women, 1,199, total, 2,104; at home on visit, men, 131, women, 204, total, 335; boarding out, men, 1, women, 9, total, 10; and out on escape, men, 9, women, 4, total, 13; making a total of 2,462, 1,046 men and 1,416 women, in the custody of the hospital.

Three hundred and twenty-four men and 297 women, a total of 617, were received during the year. This included the following: first admissions as insane\*, men, 223, women, 204, total, 427; readmissions as insane†, men, 55, women, 53, total, 108; first admissions, temporary care, men, 14, women, 17, total, 31; readmissions, temporary care, men, 14, women, 5, total, 19; and transferred from other institutions, men, 14, women, 18, total, 32. Two hundred and eighty-nine cases, including 131 men and 158 women, were discharged during the year. Ninety-seven men and 6 women, a total of 103, were transferred to other institutions. One hundred and thirteen men and 126 women, a total of 239, died during the year.

The census on Sept. 30, 1924, was as follows: in the wards, men, 860, women, 1,218, total, 2,078; at home on visit, men, 155, women, 190, total, 345; boarding out, men, 1, women, 11, total, 12; and out on escape, men, 6, women, 2, total, 8; making a total of 2,443, 1,022 men and 1,421 women, in the custody of the hospital.

The total number of cases treated during the year was 3,079, 1,366 men and 1,713 women.

The average daily number of patients for the statistical year was: men, 1,032.47,

\*Including 2 men and 1 woman committed from temporary care at the beginning of the year.

†Including 1 man and 1 woman committed from temporary care at the beginning of the year.

women, 1,418.69, total, 2,451.16. The average daily number in the wards was: men, 890.48, women, 1,216.17, total, 2,106.65, or 85.95 per cent of the whole number. The average daily number at home on visit was: men, 134.90, women, 189.08, total, 323.98, or 13.22 per cent. The average daily number boarding out was: men, 1.00, women, 10.65, total, 11.65, or .47 per cent. The average daily number out on escape was: men, 6.09, women, 2.79, total, 8.88, or .36 per cent. The average daily number of committed cases was: men, 886.89, women, 1,213.67, total, 2,100.56, or 99.71 per cent of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was: men, .024, women, .033, total, .057, or .0027 per cent. The average daily number of temporary care cases was: men, 3.59, women, 2.50, total, 6.09, or .29 per cent. The average daily number of cases under complaint or indictment was: men, 7.30, women, 3.50, total, 10.80, or .51 per cent. The average daily number of epileptics was: men, 16.12, women, 13.88, total, 30.00, or 1.42 per cent. The average daily number of private cases was: men, 19.83, women, 69.15, total, 88.98, or 4.13 per cent. The average daily number of reimbursing cases was: men, 95.55, women, 131.59, total, 227.14, or 10.78 per cent. The average daily number of cases supported by the State was: men, 775.10, women, 1,015.43, total, 1,790.53, or 85.09 per cent. There was a daily average of 59.18 ex-service men.

The recovery rate, based on the number of first admissions, was 13.53 per cent; based on the total number cared for during the year, 2.01 per cent; based on the average daily number in the wards, 2.94 per cent; and based on the total admissions for the year, 10.05 per cent.

The death rate, based on the total number cared for during the year, was 7.76 per cent; and based on the average daily number in the wards, 11.34 per cent. The death rate of the hospital is unusually large when compared with that of other institutions of a similar character, as over thirty per cent of the population is of the infirm type, and eight per cent represents actual bed cases. This is due to the fact that the acutely ill, the senile and the infirm cases from the city cannot be readily transported to distant institutions, and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate.

Of the first admissions as insane, 192, or 44.96 per cent, were foreign born, and 319, or 74.71 per cent, were of foreign parentage on one or both sides. Sixty-nine, or 16.16 per cent, were aliens.

The average age on admission was 50.78; 165, or 38.64 per cent, were sixty years of age or over, and 95, or 22.25 per cent, were seventy years of age or over.

The first admissions for the year, classified according to legal status, were as follows:—

	Males.	Females.
Committed cases (section 51, chapter 123, General Laws) . . . . .	164	151
Voluntary admissions (section 86, chapter 123, General Laws) . . .	0	0
Emergency commitments (section 78, chapter 123, General Laws) . . . . .	1	3
Cases held under complaint or indictment (section 100, chapter 123, General Laws) . . . . .	6	1
Pending examination and hearing (section 55, chapter 123, General Laws) . . . . .	0	0
Temporary care cases (section 79, chapter 123, General Laws) . . .	38	38
Observation cases (section 77, chapter 123, General Laws) . . . . .	14	11
Total, . . . . .	223	204

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (section 51, chapter 123, General Laws), 73.77 per cent; emergency cases (section 78, chapter 123, General Laws), .94 per cent; cases held under complaint or indictment (section 100, chapter 123, General Laws), 1.64 per cent; temporary care cases (section 79, chapter 123, General Laws), 17.80 per cent; and observation

cases (section 77, chapter 123, General Laws), 5.85 per cent. No voluntary cases (section 86, chapter 123, General Laws), and no cases pending examination and hearing (section 55, chapter 123, General Laws), were admitted during the year.

Three hundred and fifteen committed cases (section 51, chapter 123, General Laws), were admitted during the year. Of these, 11, or 3.49 per cent, were discharged; 4, or 1.27 per cent, were transferred to other institutions for mental diseases; 49, or 15.55 per cent, died; and 251, or 79.69 per cent, remained at the end of the statistical year.

Four emergency cases (section 78, chapter 123, General Laws) were admitted during the year. Of these, one was changed to temporary care status (section 79, chapter 123, General Laws), and three were committed within a few days after admission, leaving none at the end of the statistical year.

Seven cases, held under complaint or indictment, were admitted under the provisions of section 100 of chapter 123 of the General Laws. One of these was transferred to another institution, four were discharged, and two remained in the hospital at the end of the statistical year.

Seventy-six temporary care cases (section 79, chapter 123, General Laws) were admitted during the year. Of these, 71, or 93.42 per cent, were committed; 4, or 5.26 per cent, changed to emergency status (section 78, chapter 123, General Laws); and one, or 1.32 per cent, to observation status (section 77, chapter 123, General Laws).

Twenty-five cases were admitted for observation (section 77, chapter 123, General Laws) during the year, and were all subsequently committed.

Of the 427 first admissions, the cause was unascertained or no cause given in 116 cases, or 27.17 per cent. In the 311 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 70, or 22.51 per cent; arteriosclerosis, 53, or 17.04 per cent; syphilis, 46, or 14.79 per cent; alcoholism, 52, or 16.72 per cent; involutional changes, 24, or 7.71 per cent; and traumatism, 4, or 1.29 per cent. There was a family history of mental diseases in 92, or 21.54 per cent, mental defects in 6, or 1.41 per cent, and nervous diseases in 13, or 3.05 per cent, of the first admissions.

The forms of mental disease shown by the first admissions, briefly summarized, were as follows: senile psychoses, 60, or 14.05 per cent; psychoses with cerebral arteriosclerosis, 82, or 19.20 per cent; general paralysis, 41, or 9.60 per cent; psychoses with other brain or nervous diseases, 8, or 1.88 per cent; alcoholic psychoses, 39, or 9.13 per cent; psychoses with other somatic diseases, 10, or 2.34 per cent; manic-depressive psychoses, 66, or 15.46 per cent; involution melancholia, 9, or 2.11 per cent; dementia praecox, 56, or 13.11 per cent; paranoia or paranoid conditions, 16, or 3.76 per cent; psychoses with mental deficiency, 9, or 2.11 per cent; undiagnosed psychoses, 8, or 1.88 per cent; and all other psychoses one per cent or less. The psychoses of all first admissions are shown in Table No. 6, on page 31.

The forms of mental disease shown by the readmissions, briefly summarized, were as follows: senile psychoses, 2, or 1.85 per cent; psychoses with cerebral arteriosclerosis, 4, or 3.70 per cent; general paralysis, 9, or 8.33 per cent; alcoholic psychoses, 11, or 10.18 per cent; psychoses with other somatic diseases, 2, or 1.85 per cent; manic-depressive, 26, or 24.08 per cent; dementia praecox, 27, or 25.02 per cent; paranoia or paranoid conditions, 8, or 7.40 per cent; psychoses with psychopathic personality, 5, or 4.63 per cent; psychoses with mental deficiency, 4, or 3.70 per cent; and all other psychoses one per cent or less. Five, or 4.63 per cent, were without psychosis.

Of these readmissions, 73, or 67.60 per cent, were committed under the provisions of section 51, chapter 123, General Laws; 21, or 19.44 per cent, were temporary care cases (section 79, chapter 123, General Laws); 8, or 7.40 per cent, were observation cases (section 77, chapter 123, General Laws); and 6, or 5.55 per cent, cases held under complaint or indictment (section 100, chapter 123, General Laws). No emergency cases (section 78, chapter 123, General Laws) and no voluntary cases (section 86, chapter 123, General Laws) were included in the readmissions for the year.



The following tables show the psychoses of all first admissions classified according to legal status:—

*Psychoses of Committed Cases (Section 51, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL		
				M.	F.	T.
Traumatic psychoses .....				1	0	1
Senile psychoses .....				12	27	39
Simple deterioration .....	6	12	18			
Depressed and agitated states .....	1	3	4			
Paranoid types .....	4	12	16			
Others .....	1	0	1			
Psychoses with cerebral arteriosclerosis .....				34	19	53
General paralysis .....				28	5	33
Psychosis with cerebral syphilis .....				1	0	1
Psychosis with brain tumor .....				0	1	1
Psychoses with other brain or nervous diseases .....				1	3	4
Paralysis agitans .....	0	1	1			
Multiple sclerosis .....	0	1	1			
Tabes dorsalis .....	1	0	1			
Type undetermined .....	0	1	1			
Alcoholic psychoses .....				23	9	32
Delirium tremens .....	2	0	2			
Korsakow's psychosis .....	2	2	4			
Acute hallucinosis .....	8	2	10			
Other types, acute or chronic .....	11	5	16			
Psychoses due to drugs and other exogenous toxins .....				1	2	3
Opium (and derivatives), cocaine, bromides, chloral, etc. ....	1	2	3			
Psychoses with other somatic diseases .....				2	4	6
Delirium with infectious disease .....	0	1	1			
Post-infectious psychosis .....	0	1	1			
Cardio-renal disease .....	0	1	1			
Others .....	2	1	3			
Manic-depressive psychoses .....				23	35	58
Manic type .....	7	4	11			
Depressive type .....	14	27	41			
Other types .....	2	4	6			
Involution melancholia .....				4	3	7
Dementia praecox .....				21	25	46
Paranoid type .....	8	15	23			
Catatonic type .....	8	2	10			
Hebephrenic type .....	3	6	9			
Type undetermined .....	2	2	4			
Paranoia or paranoid conditions .....				4	10	14
Epileptic psychosis .....				1	0	1
Clouded states .....	1	0	1			
Psychoneuroses and neuroses .....				3	1	4
Hysterical type .....	1	0	1			
Neurasthenic type .....	2	1	3			
Psychosis with psychopathic personality .....				1	0	1
Psychoses with mental deficiency .....				1	4	5
Undiagnosed psychoses .....				1	3	4
Without psychosis .....				2	0	2
Mental deficiency without psychosis .....						
TOTAL .....	2	0	2	164	151	315

*Psychoses of Emergency Commitments (Section 78, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL		
				M.	F.	T.
Senile psychosis .....				0	1	1
Paranoid type .....	0	1	1			
General paralysis .....				0	1	1
Paranoia or paranoid conditions .....				1	0	1
Without psychosis .....				0	1	1
Psychopathic personality without psychosis .....	0	1	1			
TOTAL .....				1	3	4

*Psychoses of Cases held under Complaint or Indictment (Section 100, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL		
				M.	F.	T.
Psychosis with cerebral syphilis				1	0	1
Alcoholic psychoses				3	1	4
Delirium tremens	2	0	2			
Other types	1	1	2			
Psychoses due to drugs and other exogenous toxins				1	0	1
Opium, cocaine, bromides, chloral, etc.	1	0	1			
Dementia præcox				1	0	1
Type undetermined	1	0	1			
TOTAL				6	1	7

*Psychoses of Temporary Care Cases (Section 79, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL		
				M.	F.	T.
Senile psychoses				8	9	17
Simple deterioration	3	4	7			
Depressed and agitated states	1	1	2			
Paranoid types	4	4	8			
Psychoses with cerebral arteriosclerosis				9	15	24
General paralysis				3	1	4
Psychosis with brain tumor				1	0	1
Psychoses with other brain or nervous diseases				3	0	3
Tabes dorsalis	1	0	1			
Type undetermined	2	0	2			
Alcoholic psychoses				2	1	3
Acute hallucinosis	1	0	1			
Other types	1	1	2			
Psychoses with other somatic diseases				0	4	4
Delirium with infectious disease	0	1	1			
Diabetes	0	1	1			
Tuberculosis of the lungs	0	1	1			
Carcinoma	0	1	1			
Manic-depressive psychoses				4	2	6
Manic type	2	0	2			
Depressive type	2	2	4			
Involution melancholia				1	0	1
Dementia præcox				2	2	4
Catatonic type	1	2	3			
Hebephrenic type	1	0	1			
Paranoia or paranoid conditions				0	1	1
Psychoneuroses and neuroses				1	0	1
Psychasthenic type	1	0	1			
Psychosis with psychopathic personality				1	0	1
Psychoses with mental deficiency				1	2	3
Undiagnosed psychoses				2	1	3
TOTAL				38	38	76

*Psychoses of Observation Cases (Section 77, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL		
				M.	F.	T.
Senile psychoses				1	2	3
Simple deterioration	1	0	1			
Paranoid type	0	2	2			
Psychoses with cerebral arteriosclerosis				2	3	5
General paralysis				3	0	3
Psychoses with other brain or nervous diseases				1	0	1
Type undetermined	1	0	1			
Manic-depressive psychoses				2	0	2
Depressive type	2	0	2			
Involution melancholia				0	1	1
Dementia præcox				2	3	5
Paranoid type	0	3	3			
Hebephrenic type	2	0	2			
Psychoneuroses and neuroses				0	1	1
Psychasthenic type	0	1	1			
Psychoses with psychopathic personality				2	0	2
Psychosis with mental deficiency				1	0	1
Undiagnosed psychosis				0	1	1
TOTAL				14	11	25

One hundred and twenty-nine temporary care cases (section 79, chapter 123, General Laws) were admitted during the year ending Sept. 30, 1924. Of these, 88, or 68.22 per cent, were committed under the provisions of section 51, chapter 123, General Laws; 8, or 6.20 per cent, changed to observation status, none to voluntary, 4, or 3.10 per cent, to emergency status; 25, or 19.38 per cent, were discharged, 3, or 2.33 per cent, died, and 1, or .77 per cent, was transferred to another hospital, leaving none at the end of the statistical year. Of the 25 discharges, one, or 4 per cent, was discharged as recovered; one, or 4 per cent, as improved; 20, or 80 per cent, as unimproved; and 3, or 12 per cent, as without psychosis. In addition to this, one case, admitted as emergency under the provisions of section 78, chapter 123, General Laws, was changed to temporary care status and later committed under section 51, chapter 123, General Laws.

Four emergency cases (section 78, chapter 123, General Laws) were admitted during the year. Three of these were committed in accordance with the provisions of section 51, chapter 123, General Laws, and one was changed to temporary care status and later committed, leaving none at the end of the statistical year. In addition to this, two cases shown in the admissions for the year as temporary care cases were later committed under the provisions of section 78, one of which was finally committed under section 51, chapter 123, General Laws, and the other remained at the end of the statistical year.

Forty-six observation cases (section 77, chapter 123, General Laws) were admitted during the year. Of these, 28, or 60.86 per cent, were committed under the provisions of section 51, chapter 123, General Laws, 16, or 34.80 per cent, discharged, none died, none were transferred, and 2, or 4.34 per cent, remained at the end of the statistical year. Of the sixteen discharges, 4, or 25 per cent, were discharged as recovered; one, or 6.25 per cent, as improved; two, or 12.50 per cent, as unimproved; and 9, or 56.25 per cent, as without psychosis. To the above should be added four cases shown in the admissions under section 79, two of which were discharged (as without psychosis) and two committed under the provisions of section 51 of chapter 123 of the General Laws.

Thirteen cases held under complaint or indictment (section 100, chapter 123, General Laws) were admitted during the year. Of these, 4, or 30.77 per cent, were transferred to another hospital, one, or 7.69 per cent, was discharged (as recovered), 3, or 23.08 per cent, returned to jail restored to sanity, one, or 7.69 per cent, died, and four, or 30.77 per cent, remained in the institution at the end of the statistical year.

No voluntary cases (section 86, chapter 123, General Laws) and no cases pending examination and hearing (section 55, chapter 123, General Laws) were admitted during the year.

The following table shows the psychoses of all cases admitted as temporary care, all forms, and subsequently committed under the provisions of section 51, chapter 123, General Laws:—

	M.	F.	T.	TOTAL		
				M.	F.	T.
Senile psychoses				10	13	23
Simple deterioration	5	4	9			
Depressed and agitated	1	1	2			
Paranoid type	4	8	12			
Psychoses with cerebral arteriosclerosis				11	18	29
General paralysis				7	2	9
Psychosis with Huntington's chorea				0	1	1
Psychosis with brain tumor				1	0	1
Psychoses with other brain or nervous diseases				4	0	4
Tabes dorsalis	1	0	1			
Type undetermined	3	0	3			
Alcoholic psychoses				2	1	3
Pathological intoxication	1	0	1			
Acute hallucinosis	1	0	1			
Alcoholic deterioration	0	1	1			
Psychoses with other somatic diseases				0	4	4
Delirium with tuberculosis	0	1	1			
Diabetes	0	1	1			
Tuberculosis of the lungs	0	1	1			
Carcinoma	0	1	1			
Manic-depressive psychoses				10	7	17
Manic type	4	5	9			
Depressive type	6	2	8			
Involution melancholia				1	1	2
Dementia praecox				12	6	18
Paranoid type	5	4	9			
Catatonic type	1	2	3			
Hebephrenic type	4	0	4			
Simple type	1	0	1			
Type undetermined	1	0	1			
Paranoia or paranoid conditions				2	2	4
Epileptic psychoses				0	0	0
Psychoneuroses and neuroses				1	1	2
Psychasthenic type	1	1	2			
Psychoses with psychopathic personality				3	1	4
Psychoses with mental deficiency				3	2	5
Undiagnosed psychoses				2	2	4
Without psychosis				2	2	4
Psychopathic personality without psychoses	0	1	1			
Mental deficiency without psychosis	2	1	3			
TOTAL				71	63	134

The following table shows the psychoses of all admissions during the year, exclusive of transfers:—

	M.	F.	T.	TOTAL		
				M.	F.	T.
Traumatic psychoses				3	0	3
Senile psychoses				23	46	69
Simple deterioration	12	17	29			
Depressed and agitated types	2	6	8			
Paranoid types	8	23	31			
Others	1	0	1			
Psychoses with cerebral arteriosclerosis				54	41	95
General paralysis				43	7	50
Psychoses with cerebral syphilis				4	0	4
Psychosis with Huntington's chorea				0	1	1
Psychoses with brain tumor				1	1	2
Psychoses with other brain or nervous diseases				5	4	9
Paralysis agitans	0	1	1			
Multiple sclerosis	0	1	1			
Tabes dorsalis	2	0	2			
Other diseases	3	2	5			
Alcoholic psychoses				39	15	54
Delirium tremens	4	1	5			
Acute hallucinosis	14	3	17			
Korsakow's psychosis	2	2	4			
Other types, acute or chronic	19	9	28			
Psychoses due to drugs and other exogenous toxins				2	2	4
Opium (and derivatives), cocaine, bromides, chloral, etc.	2	2	4			
Psychoses with other somatic diseases				2	14	16
Delirium with infectious disease	0	1	1			
Post-infectious psychosis	0	1	1			
Delirium of unknown origin	0	1	1			
Cardiorenal diseases	0	2	2			
Other diseases or conditions	2	9	11			
Manic-depressive psychoses				42	55	97
Manic type	16	16	32			
Depressive type	23	35	58			
Other types	3	4	7			
Involution melancholia				5	4	9
Dementia praecox				41	43	84
Paranoid type	17	24	41			
Catatonic type	10	7	17			
Hebephrenic type	8	8	16			
Other types	6	4	10			
Paranoia or paranoid conditions				9	17	2
Epileptic psychoses				2	1	3
Clouded states	2	1	3			
Psychoneuroses and neuroses				4	4	8
Hysterical type	1	2	3			
Psychasthenic type	1	1	2			
Neurasthenic type	2	1	3			
Psychoses with psychopathic personality				6	4	10
Psychoses with mental deficiency				7	6	13
Undiagnosed psychoses				3	5	8
Without psychosis				11	9	20
Epilepsy without psychosis	1	0	1			
Alcoholism without psychosis	2	1	3			
Drug addiction without psychosis	0	1	1			
Psychopathic personality without psychosis	2	4	6			
Mental deficiency without psychosis	5	1	6			
Others	1	2	3			
TOTAL				806	279	585

The psychoses represented by the cases discharged from the hospital during the year were as follows: senile psychoses, 12, or 4.88 per cent; psychoses with cerebral arteriosclerosis, 14, or 5.69 per cent; general paralysis, 7, or 2.85 per cent; psychoses with cerebral syphilis, 7, or 2.85 per cent; psychosis with Huntington's chorea, 1, or .41 per cent; psychosis with brain tumor, 1, or .41 per cent; psychoses with other brain or nervous diseases, 2, or .81 per cent; alcoholic psychoses, 25, or 10.16 per cent; psychoses due to drugs or other exogenous toxins, 5, or 2.03 per cent; psychoses with other somatic diseases, 10, or 4.05 per cent; manic-depressive psychoses, 60, or 24.40 per cent; involution melancholia, 4, or 1.62 per cent; dementia praecox, 41, or 16.67 per cent; paranoia or paranoid conditions, 18, or 7.29 per cent; epileptic psychoses, 2, or .81 per cent; psychoneuroses and neuroses, 5, or 2.03 per cent; psychoses with psychopathic personality, 6, or 2.43 per cent; psychoses with mental deficiency, 13, or 4.47 per cent; undiagnosed psychoses, 3, or 1.22 per cent; and without psychosis, 10, or 4.05 per cent.

The total number of cases discharged during the year was 246. Of this number, 57, or 23.17 per cent, were discharged as recovered; 143, or 58.13 per cent, as improved; 36, or 14.64 per cent, as unimproved; and 10, or 4.05 per cent, as without psychosis. Of the 57 recovered cases, 28, or 49.12 per cent, were cases of manic-depressive psychoses; 11, or 19.30 per cent, alcoholic psychoses; 3, or 5.26 per cent, psychoses due to drugs or other exogenous toxins; 1, or 1.75 per cent, involution melancholia; 4, or 7.01 per cent, psychoses with other somatic diseases; 2, or 3.50 per cent, psychoneuroses and neuroses; 1, or 1.75 per cent, psychoses with cerebral arteriosclerosis; 4, or 7.02 per cent, psychoses with mental deficiency; and 3, or 5.26 per cent, psychoses with psychopathic personality. Of the 143 cases discharged as improved, 28, or 19.58 per cent, were cases of manic-depressive psychoses; 35, or 24.47 per cent, dementia praecox; 12, or 8.39 per cent, alcoholic psychoses; 12, or 8.39 per cent, paranoia or paranoid conditions; 3, or 2.10 per cent, psychoses with psychopathic personality; 8, or 5.60 per cent, psychoses with mental deficiency; 10, or 7.00 per cent, psychoses with cerebral arteriosclerosis; 3, or 2.10 per cent, general paralysis; 5, or 3.50 per cent, psychoses with other somatic diseases; 9, or 6.30 per cent, senile psychoses; 3, or 2.10 per cent, undiagnosed psychoses; 5, or 3.50 per cent, psychoses with cerebral syphilis; 2, or 1.40 per cent, involution melancholia; 1, or .70 per cent, psychosis with Huntington's chorea; 1, or .70 per cent, psychosis with brain tumor; 1, or .70 per cent, epileptic psychosis; 3, or 2.10 per cent, psychoneuroses and neuroses; and 2, or 1.40 per cent, psychoses due to drugs and other exogenous toxins. Of the 36 cases discharged as unimproved, 6, or 16.67 per cent, were dementia praecox; 6, or 16.67 per cent, paranoia or paranoid conditions; 4, or 11.11 per cent, manic-depressive psychoses; 3, or 8.33 per cent, senile psychoses; 4, or 11.11 per cent, general paralysis; 3, or 8.33 per cent, psychoses with cerebral arteriosclerosis; 2, or 5.56 per cent, alcoholic psychoses; 1, or 2.78 per cent, psychoses with mental deficiency; 2, or 5.56 per cent, psychoses with cerebral syphilis; 1, or 2.78 per cent, psychosis with other somatic disease; 2, or 5.56 per cent, psychoses with other brain or nervous diseases; 1, or 2.78 per cent, involution melancholia; and 1, or 2.78 per cent, epileptic psychosis.

A study of the entire hospital residence (including other institutions for mental diseases) of the cases discharged during the statistical year is of considerable interest. Nine, or 3.66 per cent, were discharged after a residence of less than one month; 112, or 45.53 per cent, after a residence of from one to six months; 49, or 19.92 per cent, from six months to one year; 35, or 14.22 per cent, from one to two years; 12, or 4.88 per cent, two to three years; 12, or 4.88 per cent, three to four years; 8, or 3.25 per cent, four to five years; 7, or 2.84 per cent, five to ten years; and 2, or .81 per cent, ten years and over. The average duration of total hospital residence was one year, three months and eight days.

Of the 236 deaths occurring during the year, 143, or 60.59 per cent, represented cases dying at the age of sixty or over. In 92 cases, or 39.36 per cent, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: bronchopneumonia, 52, or 22.03 per cent; arteriosclerosis, 34, or 14.40 per cent; tuberculosis of the lungs, 23, or 9.74 per cent; endocarditis and myocarditis, 39, or 16.52 per cent; general paralysis of the insane, 23, or 9.74 per cent; diarrhea and enteritis, 13, or 5.51 per cent; lobar pneumonia, 5, or 2.12 per cent; cerebral hemorrhage, 10, or 4.24 per cent; chronic nephritis, 4, or 1.70 per cent.

The psychoses represented by deaths occurring in the hospital during the year were as follows: traumatic psychoses, 1, or .42 per cent; senile psychoses, 50, or 21.20 per cent; psychoses with cerebral arteriosclerosis, 75, or 31.80 per cent; general paralysis, 36, or 15.25 per cent; psychosis with brain tumor, 1, or .42 per cent; psychoses with other brain or nervous diseases, 2, or .85 per cent; alcoholic psychoses, 10, or 4.24 per cent; psychosis with pellagra, 1, or .42 per cent; psychoses with other somatic diseases, 8, or 3.36 per cent; manic-depressive psychoses, 10, or 4.24 per cent; involution melancholia, 8, or 3.36 per cent; dementia praecox, 23, or 9.74 per cent; paranoia or paranoid conditions, 5, or 2.12 per cent; epileptic psychoses, 4, or 1.70 per cent; and psychoses with mental deficiency, 2, or .85 per cent. Of the 50 cases of senile psychoses dying in the hospital during the year

14, or 28.00 per cent, were due to bronchopneumonia. Of the 75 cases of arteriosclerotic psychoses, death was due in 20, or 26.67 per cent, to bronchopneumonia, and in 24, or 32 per cent, death was attributed directly to arteriosclerosis. Of the 36 cases of general paralysis, 12, or 33.33 per cent, were reported as dying from bronchopneumonia, and in 23, or 16.67 per cent, general paralysis of the insane was given as the cause of death. Of the 23 cases of dementia praecox, death was due in 8, or 34.78 per cent, to pulmonary tuberculosis.

Of the 236 patients dying in the hospital during the year, the total duration of hospital residence was as follows: one year or less, 115, or 48.76 per cent; one to two years, 44, or 18.62 per cent; two to three years, 23, or 9.74 per cent; three to four years, 11, or 4.65 per cent; four to five years, 9, or 3.81 per cent; five to six years, 3, or 1.27 per cent; six to seven years, 4, or 1.70 per cent; seven to eight years, 5, or 2.12 per cent; eight to nine years, 4, or 1.70 per cent; nine to ten years, 3, or 1.27 per cent; ten to fifteen years, 4, or 1.70 per cent; fifteen to twenty years, 5, or 2.12 per cent; and over twenty years, 6, or 2.54 per cent. The average duration of hospital residence of the cases dying in the hospital during the year was two years, eleven months, and four days. The psychoses showing the longest hospital residence were as follows: senile psychoses, one each over 14, 15 and 26 years; psychoses with cerebral arteriosclerosis, one over 19 years; involution melancholia, one over 14 years; dementia praecox, one each over 17, 27, 34 and 40 years; paranoia or paranoid conditions, one each over 15 and 17 years; epileptic psychosis, one over 21 years; and psychosis with mental deficiency, one over 28 years.

The following general statistical information relating to ward service should be of interest:—

	Males	Females	Totals	Percentage
Average daily population	890.48	1216.17	2106.65	100.00
In bed	95.46	92.27	187.73	8.91
In restraint	.71	5.95	6.66	.31
In seclusion	.94	14.53	15.47	.73
Eating in dining rooms	776.26	928.00	1704.26	80.89
Eating on wards	114.22	288.17	402.39	19.11
Fed by nurses	19.98	62.72	82.70	3.92
Idle	362.70	573.23	935.93	44.43
Employed	527.78	642.94	1170.72	55.57
Parole of grounds	128.87	44.67	173.54	8.24
Out for exercise	771.47	795.42	1566.89	74.38
Noisy	31.91	148.27	180.18	8.55
Violent	.92	26.77	27.69	1.31
Destructive	3.23	51.03	54.26	2.57
Soiled or wet	67.69	167.69	235.38	11.17
Taking medicine	27.03	30.62	57.65	2.74
Infirm	350.57	386.60	737.17	34.90

The average daily number for the entire year is represented in each instance in the percentages given in the preceding table, that is: the average daily number of patients in bed was 187.73, or 8.91 per cent of the average daily number of patients in the wards of the hospital for the year, and the average daily number out for exercise was 1566.89, or 74.38 per cent of the same average daily population. The large percentage of bed cases shown, nearly nine per cent, is explained by the fact that many senile and infirm cases cannot readily be removed to institutions outside of the metropolitan district and are of necessity received at the Boston State Hospital. This accounts in some measure for the large proportion of our patients who belong to the infirmary class,—about thirty-five per cent of the total number of cases cared for. The continued shortage of nurses and attendants is partly responsible for the amount of restraint and seclusion as shown by the above table, although this is small. It will be observed that quite a large proportion of our patients goes out for exercise daily, if the percentage of infirm (including the bed patients) is taken into consideration. The average daily number of noisy patients is of considerable interest. Popular ideas regarding institutions of this type are not borne out by the actual number of violent patients. Eliminating the percentage of bed cases, the average daily number of patients employed in useful occupations should not be considered as small.

## GENERAL HEALTH OF THE HOSPITAL.

No serious epidemics have occurred during the year and the general health of the patients has been good. During August and September there were twenty-seven cases of diarrhea and enteritis among the feeble old ladies in the West Building, several of whom died. This illness resembled the mild attacks reported in previous years, the exact cause of which, in spite of considerable special study, we have not as yet been able to ascertain. A careful investigation made by the pathologist of the Department of Mental Diseases unfortunately threw no light on the subject. In January two attendants developed scarlet fever, apparently from infections received somewhere outside the institution, from which they each made a good recovery. In March there was one case of measles, an attendant, who recovered fully. No other cases developed.

The usual number of minor accidents and injuries occurred in the wards and were all reported in the usual manner to the Board of Trustees and the Department of Mental Diseases, and thoroughly investigated. There have been no homicides or suicides during the year. On page 41 will be found the number of deaths for the year, and the number of autopsies is shown in the report of the pathological laboratory.

The treatment of neurosyphilis has been carried on during the year by Dr. Roy D. Halloran. The treatments given (239) were as follows:—

Tryparsamid—Intravenous (dose 3 gm.)	1
Sulpharsphenamine—Intravenous (av. dose .6 gm.)	41
“ —Intramuscular (av. dose .6 gm.)	90
“ —Subcutaneous (av. dose .6 gm.)	34
“ —Intra-arterial (carotid)(av. dose .6 gm.)	59
Mercury—Intramuscular (1 gr.)	14

A series of thirteen cases of general paresis were treated with sulpharsphenamine and mercury. One hundred and two treatments were given in all, 51 of these being intravenous and 51 intramuscular. Eleven cases received eight treatments, and two cases, seven. General physical improvement was manifested in nine, and mental improvement in four cases. Serum Wassermann was reduced in two and no change in the serum Wassermann was reported in eleven cases. The spinal fluid Wassermann was reduced in two and in eleven remained unchanged. In ten cases the globulin and albumin was reduced and in ten the gold curve was changed. As a result of this series of treatments and a comparison of the results obtained from them, the conclusion seems to be warranted that sulpharsphenamine is preferable to the drugs heretofore administered.

The intracarotid administration of sulpharsphenamine has been carried on since June 30. The advantages of this method of treatment are uncertain at this time, as further investigation will be necessary.

Seven hundred and seventy Wassermann examinations were made for us by the State Department of Public Health. Six hundred and fourteen specimens of blood serum and 156 of cerebrospinal fluid were examined.

## EMPLOYEES.

On September 30, 1923, there were 382 persons in the employ of the hospital. During the year 623 were appointed, 559 resigned and 37 were discharged. Ten hundred and five persons occupied 446 positions,—a rotation of 2.25. The average daily number of employees during the year was 406.99, with 8.6 per cent of vacancies. The average daily number in the ward service was 230.9, with 11.18 per cent of vacancies. The ratio of ward employees was one to 9.14 patients, and of all employees, one to 5.17. Although this represents a slight improvement over the past year, the shortage, especially in the ward service, has been such as to interfere somewhat with the efficient and proper care of patients. This has affected the medical service in various ways. Less patients have been employed and there has been more restraint and seclusion than would be needed ordinarily. The lack of ward supervision, moreover, has resulted in a destruction of clothing and other ward supplies that is of considerable importance from a financial point of view. The limited number of nurses and attendants has, of course, materially interfered



with our ability to satisfactorily handle the large number of visitors calling at the hospital to see their relatives and friends. The total number of visits made to the patients during the last year was 70,700. We often have 500 or 600 visitors during one day, the highest number on any one day during the year being 974. The decrease in the number of nurses is, of course, a material factor in increasing accidents, injuries and escapes. At the present time there is much less difficulty in obtaining the services of male employees. It is still hard, however, to maintain an adequate force of female nurses and attendants. This is due, doubtless, in part, to the fact that the hours of duty are long, and association with mental cases is not attractive to those who are not familiar with this line of work. This is a problem, however, which has affected the general hospitals to a certain extent. Under the circumstances, an increased compensation should be seriously considered. One of the factors which has interfered with our maintenance of an adequate force of ward employees heretofore has been the lack of comfortable living quarters. At the present time we are unable to properly house male ward attendants. The employees' cottage occupied by men has a capacity of only 42. Our quota of male attendants is 114. It has been necessary for them to be quartered in attics and in many other places which are far from being desirable. We are badly in need of a new building for male ward attendants. We have no satisfactory place for employees engaged in outside work. The old farmhouse in the West Group, which furnishes quarters for only 19 persons, is in such a condition that it should be torn down and replaced as soon as possible. There has always been difficulty in inducing our employees to live in it. The fact that our male attendants have been scattered around in so many different places has, of course, made it difficult to keep them under proper supervision.

The shortage of staff quarters is also a serious matter which should be remedied as soon as the cost of construction will permit. Various officers and employees assigned to the East Group have from time to time been compelled to live in buildings in the West Group, nearly a mile away.

#### MEDICAL SERVICE.

The only change in the medical service during the year was the resignation of Dr. Jacob I. Kasanin, assistant physician, who left on March 1, 1924, for a year at the Boston Psychopathic Hospital. The staff of consulting specialists remains unchanged.

Staff meetings have been held as usual during the year, alternating between the East and West groups. Efforts have been made to present all new admissions at staff meetings, as well as cases about to leave the hospital on visit or cases to be discharged.

The following is a summary of the more important operations of the year. No cases were sent to the Boston City Hospital for operation. Dr. Irving J. Walker of Boston has visited the hospital regularly and had charge of this work.

Cholecystotomy, 1; Dilatation and curettage, 2; Exploratory laparotomy, removal of appendix, 1; Exploratory laparotomy, removal of foreign bodies, 1; Hemorrhoidectomy, 2; Herniotomy, 1; Hysterectomy, appendectomy, 1; Incision and drainage of glands of neck, 1; Paraphimosis, 1; Plastic operation of left eyeball, 1; Removal of needle from foot, 1; Resection of nose, sub-mucous, 1.

#### OUT-PATIENT SERVICE.

An important part of the work of the out-patient department is the supervision of patients in family care and those on visit, as well as the after care of cases discharged from the custody of the hospital. Many persons who come to the hospital to consult members of the staff on matters concerning their own welfare or that of their family or relatives are given medical advice. The social workers make frequent visits to patients who have been allowed to go home or who have left the hospital temporarily for family care. Patients on visit are also required to report at the hospital at regular intervals for observation. Many former patients who have been discharged are kept under the supervision of our social workers and physicians. Some cases which appear for consultation are referred to their

family physicians or to the Boston Psychopathic Hospital. The following table shows the movement of patients under the supervision of the out-patient department:—

	Males	Females	Totals
In family care Sept. 30, 1923 .....	1	9	10
On escape Sept. 30, 1923 .....	9	4	13
On visit Sept. 30, 1923 .....	131	204	335
Dismissed to family care during the year .....	0	5	5
Escaped during the year .....	22	5	27
Dismissed on visit during the year .....	962	865	1,827
Admitted from family care .....	0	0	0
Admitted from escape .....	18	5	23
Admitted from visit .....	848	757	1,605
Admitted from family care and discharged .....	0	3	3
Admitted from escape and discharged .....	7	2	9
Admitted from visit and discharged .....	90	122	212
In family care Sept. 30, 1924 .....	1	11	12
On escape Sept. 30, 1924 .....	6	2	8
On visit Sept. 30, 1924 .....	155	190	345

#### SOCIAL SERVICE DEPARTMENT.

The following is a summary of the social service work done during the year under the direction of Miss Marie L. Donohoe:—

Total number of cases considered: .....	1,288
New cases, Hospital .....	262
New cases, School clinic .....	232
New cases, community .....	20
Renewed cases from previous year .....	210
Continued cases from previous year .....	564
Closed cases during the year:	
Hospital .....	359
School clinic .....	232
Community .....	18
Cases continued .....	679
Sources of new cases:	
Referred by physicians .....	162
Referred by community agencies .....	66
Referred by friends or relatives .....	18
Referred by patients' own initiative .....	16
Referred by schools .....	232
Selected by Social Service .....	19
Purposes for which cases were referred:	
Histories:	
Hospital patients .....	104
School clinic cases .....	232
Home investigation prior to discharge .....	52
Social investigation:	
Conduct disorders .....	57
Employment situations .....	39
Statements of patients .....	52
Statements of others .....	104
Full social investigation .....	64
Assistance to families of patients .....	77
To care for needs of ex-service men, such as compensation, guardian-ship, etc., .....	119
Placement:	
In employment .....	28
For medical care .....	3
For boarding out .....	16
Personal services to patients .....	91

## Purposes for which cases were referred:—Continued.

Information service:	
Abstracts to other agencies . . . . .	42
Supervision:	
Cases cared for in a general way, with visits, advice, hygiene, etc. . . . .	559
Cases with whom real social treatment is attempted, i. e., study and analysis followed by the application of a careful, well thought-out plan of treatment . . . . .	63
Psychoses of new cases:	
Traumatic psychosis . . . . .	1
Senile psychoses . . . . .	16
Psychoses with cerebral arteriosclerosis . . . . .	27
General paralysis . . . . .	8
Psychoses with cerebral syphilis . . . . .	8
Psychosis with Huntington's chorea . . . . .	1
Psychoses with brain tumor . . . . .	0
Psychoses with other brain or nervous diseases . . . . .	2
Alcoholic psychoses . . . . .	30
Psychoses due to drugs and other exogenous toxins . . . . .	3
Psychosis with pellagra . . . . .	1
Psychoses with other somatic diseases . . . . .	10
Manic-depressive psychoses . . . . .	44
Involution melancholia . . . . .	2
Dementia praecox . . . . .	54
Paranoia or paranoid condition . . . . .	21
Epileptic psychoses . . . . .	0
Psychoneuroses and neuroses . . . . .	4
Psychoses with psychopathic personality . . . . .	6
Psychoses with mental deficiency . . . . .	4
Undiagnosed psychoses . . . . .	5
Without psychosis . . . . .	11
Social problems in all cases:	
School problems . . . . .	232
Disease:	
Mental . . . . .	557
Physical . . . . .	97
Environmental problems:	
Financial . . . . .	74
Employment . . . . .	95
Unsuitable environment . . . . .	25
Friction with family . . . . .	38
Marital difficulties . . . . .	19
Family problems other than friction . . . . .	13
Personality problems:	
Temperament . . . . .	70
Antisocial habits . . . . .	44
Vascillating interests . . . . .	8
Educational problems:	
Readjustment of habits of mind . . . . .	91
Recreation,—church, social relationships . . . . .	86
Legal problems:	
Ex-service men . . . . .	119
School problems . . . . .	232
General problems . . . . .	60
Nature of service rendered:	
Medical:	
Information relating to medical history:	
Hospital . . . . .	241
School clinic . . . . .	232
Information relating to home conditions . . . . .	79

## Nature of service rendered, Medical:—Continued.

Information relating to Out-Patient Dept.....	283
Arrangements for medical assistance.....	44
Social:	
Adjustment:	
Environment .....	37
Personal relationships.....	141
Recreation .....	58
Industry .....	72
Advice to:	
Patients.....	125
Relatives .....	95
Others .....	52
Family assistance and advice:	
Legal .....	24
Financial .....	43
Others .....	69
Personal Services .....	145
Placement:	
Home.....	33
Industry .....	21
Arrangements for further study .....	21
Connecting with agencies .....	129
Connecting with individuals .....	15
Total number of visits .....	2,852
To patients on wards.....	325
To patients on visit .....	562
To relatives or friends.....	919
To social agencies.....	342
To others.....	704

At the National Conference of Social Workers, held at Toronto, Canada, June 25 to July 2, 1924, Miss Donohoe read a paper on "Next Steps in State Hospital Social Service."

The authorized personnel of the social service department remains unchanged,—one head social service worker and two assistants. One social service worker resigned during the year and this vacancy was filled by the appointment of a graduate of the Smith College School for Social Work. During nine months of the year we have had the services of several students, as usual. A larger number of workers and higher salaries would make it possible for the department to cover a wider field and do much more efficient work.

## PATHOLOGICAL LABORATORY.

The routine work of the pathological laboratory may be summarized as follows:—

Autopsies, 59. Blood examinations: Cell count, red, 38; Cell count, white, 38; Cell count, differential, 38. Cerebrospinal fluid examinations, 137. Miscellaneous smears, 32. Sputum examinations, 35. Urinalyses, 1,310.

For postmortem work we are indebted to Dr. Myrtelle M. Canavan and Dr. Marjorie Fulstow, pathologists to the Department of Mental Diseases, who have done all the autopsies at the hospital during the year. We are, unfortunately, still very seriously handicapped in our laboratory work by not having a pathologist.

The number of deaths in the hospital during the year was 239, of which 59 came to autopsy, making the autopsy percentage for the year 24.69.

The following shows the psychoses represented in cases coming to autopsy:—

Senile psychoses, 13; Psychoses with cerebral arteriosclerosis, 17; General paralysis, 7; Psychosis with brain tumor, 1; Alcoholic psychoses, 5; Psychoses with other somatic diseases, 2; Manic-depressive psychoses, 5; Involution melancholia 2; Dementia praecox, 3; Paranoia or paranoïd conditions, 3; Epileptic psychosis, 1. Total, 59.

The causes of death of these cases are shown in the following:—

Arteriosclerosis, 5; Brain tumor, 1; Bronchopneumonia, 8; Carcinoma of liver, 1; Carcinoma of stomach, 1; Cerebral hemorrhage, 2; Diarrhea and enteritis, 1; Enteritis, 1; Endocarditis, acute, 2; Endocarditis, chronic, 3; Erysipelas, 2; Gangrene, pulmonary, 2; General paralysis, 4; Myocarditis, chronic, 4; Nephritis, chronic interstitial, 2; Nephritis, chronic parenchymatous, 1; Pancreatitis, acute hemorrhagic, 1; Pericarditis, acute fibrinous, 1; Peritonitis, tubercular, 1; Pleurisy, purulent, 1; Pneumonia, lobar, 5; Pyelonephritis, chronic, and cystitis, 1; Ruptured heart, 1; Septicemia, 1; Thrombosis of aorta, 1; Tuberculosis, miliary, 1; Tuberculosis of the lungs, 5. Total, 59.

#### DENTISTRY.

Dr. Lawrence H. Stone, the resident dentist, has carried on the dental work of the hospital during the year, assisted since June 30 by Dr. Bailey P. B. Chadbourne, a dental attendant. The following is a summary of the work of this department:—

Cleanings, 1,678; Crowns, 2; Examinations, 1,153; Fillings, 1,795; Inlay, 1; Miscellaneous, 190; Plates, 13; Plate repaired, 1; Pyorrhea treatments, 19; Repairs, 1; Root canal treatments, 12; Roots extracted, 769; Teeth extracted, 1,992; X-ray examinations, 13; Patients treated, 3,104.

#### HYDROTHERAPY.

Dr. Rebekah B. Wright, representing the Department of Mental Diseases, has devoted as much attention to this department as was possible, consistent with her other duties. During the year 3,187 packs and 4,100 continuous baths were given, making the average daily number of packs 8.71 and the average daily number of continuous baths 11.20. In addition to the above, the following treatments were given during the last four months of the year under the direction of Mrs. Helena B. Hubbard, who was appointed hydrotherapist in the spring:—

Salt glows, 301; Sitz baths, 246; Hot and cold to spine, 339; Foot baths, 79; Saline baths, 2; Swedish shampoos, 249; Fan douches, 645; Needle sprays, 1,313.

The patients treated had the following psychoses:—

Manic-depressive: Depressive type, 16. Dementia praecox: Paranoid type, 2; Catatonic type, 6; Hebephrenic type, 3. Alcoholic psychosis: Chronic hallucinosis, 1.

#### SCHOOL CLINIC.

In June, 1924, the School clinic completed its third year of service in the public schools of its assigned territory,—Malden, Everett and Somerville. During that time 1,016 pupils were examined. In accordance with a legislative enactment of 1919, the examination is required of all pupils in the public schools who are three years retarded in their grades. The object of this examination is the adaptation of the school curriculum to the needs of these particular pupils. The school authorities and the parents are advised on questions of physical, mental and social matters pertaining to the child. For the first year the School Clinic was in charge of Dr. Edmund M. Pease. It made too great a demand on his time and in April, 1922, it was taken over by Dr. Alberta S. Guibord. The social service department and a psychologist from the hospital staff assist in the work. Certain parts of the work are also done by the school department in the towns in which the clinics are held. About three hundred pupils are on the list for the current school year.

#### TRAINING SCHOOL FOR NURSES.

The training school for nurses has completed its twenty-fifth year. The executive staff remains the same as last year, the work of the school having been carried on by the superintendent of nurses, Miss Mary Alice McMahon, R. N. The affiliation of our school with the Boston City Hospital training school has continued throughout the year and furnishes our pupils valuable instruction and training for twelve months in general hospital work. Eleven graduates of our training school are now employed in the wards of the institution. There is continued difficulty in maintaining successful training schools for nurses in the State hospitals.

This is doubtless due to the fact that the work of a nurse in caring for psychiatric cases is more difficult in many ways than that of nurses in the general hospitals. The instruction of employees who are to care for the patients in our wards is one of the most important objects of nurses' training schools, although it is desirable to graduate nurses who are qualified to care for psychiatric cases in the community. Unfortunately, however, we are unable to retain our graduates, who, as a rule, leave almost immediately on completion of their course of instruction to accept much more remunerative positions in other services, or to take up general nursing, which offers much greater financial rewards. We must have more graduate nurses if the standards of our hospitals are to be maintained. To accomplish this, it will be necessary to offer a higher rate of pay to graduate and charge nurses. The systematic instruction of attendants, both male and female, is being carried on along the lines prescribed by the committee on training schools, representing the Department of Mental Diseases.

#### OCCUPATIONS AND INDUSTRIES.

During the year 1,150 patients have come under the supervision of the occupational therapy department of this hospital. Of this number, 4 died, 29 improved enough to be allowed to go home, 17 were sent to other hospitals, and 19 were benefited sufficiently to be capable of working in other departments. The average daily number occupied in the male wards was 118, and in the female wards 287, making a total average daily number of 405. The highest number occupied on any one day was 686. The authorized personnel in this department consists of one head occupational therapist and six assistants. In addition to this, four attendants are assigned to the department. Fourteen students from the Boston School of Occupational Therapy have each had one month of practical experience at the hospital during the year, and have shown themselves to be very much interested in the development of the work. It is hoped that several more occupational therapists may be authorized in order that a greater number of patients may be reached and the work carried on more efficiently. Occupational therapy has been continued during the year in buildings A, B, C, D, E and F in the East Group, and buildings A, B, C, D, F and G in the West Group. This consists of basketry, rug making, weaving, lace making, embroidery, knitting, crocheting, sewing, mending, furniture repairing, woodwork, simple bookbinding, tin work, cord work and drawing. A special class has been organized for dementia praecox cases in West G-2, where the patients are very disturbed and at times destructive. Forms of occupation are selected which keep these patients as quiet as possible, and in several instances they are doing work which is rather advanced and requires individual concentration. A class for dementia praecox patients of low grade in West C-2 was started in April for habit-training and re-education, and numbers sixteen men, who have showed great improvement in their degree of alertness and in their personal appearance. Gymnastics, marching to music, simple, monotonous occupations are employed, and the patients show greater interest in their surroundings. About thirty male patients are occupied for three and one-half hours daily in the classroom in West C-2. For two hours there is concentrated work in more or less advanced forms of occupation and preparatory work for the wards. The depressed patients are kept busy at weaving, painting and work in which the benefit is derived from producing objects attractive in appearance. The last hour is spent in recreation, including games, victrola music and singing. Results obtained from the class in West B, the female infirmary building, have been very gratifying. Games have been introduced on the wards and considerable interest has been aroused by the use of colors in the form of braided streamers. The beanbag is an especially satisfactory means of stimulating interest. Often after long continued use with no apparent result, it has suddenly attracted the attention of a patient, and proved to be the beginning of a reawakening. During the last six months the attendance at the class for disturbed women in West A has increased from twelve to twenty-nine, including several patients who have previously been confined to their rooms for long periods. It is hoped to carry on work in all the wards of this building also. During the coming year it is planned to establish a daily routine of habit-training in the wards where the patients are most deterio-

rated. With the recent appointment of a worker to have charge of physical training and recreation, we expect to introduce simple gymnastics and other recreations in all of the wards. A beginning has been made in the East Group and it is planned to form regular classes as soon as possible. Miss Frances E. Wood, under whose inspiring and efficient supervision the work of this department has been carried on for the past three years and built up to its present state of development, resigned on Sept. 30, 1924, to associate herself with the Boston School of Occupational Therapy. She was succeeded by Miss Martha M. Taintor.

The "occupational therapy center for mental patients" at Hopkinton has continued during the past year with gratifying success. Its purpose, a convalescent home for mental patients, has been kept in sight always and much attention has been given this small group of patients,—care as to their physical health, living conditions, mental health, recreation, and hours of work. During the past year twenty patients have enjoyed the benefits of the Center. Seventeen were formerly Boston State Hospital patients. One was admitted on the recommendation of Dr. Myerson from the Boston City Hospital, one came at the request of a private physician, and one from the Worcester State Hospital. At the end of the year five patients are still at the Center. Two of the five are partially self-supporting, one earns spending money, and the other two will probably be self-supporting in a short time. The real worth of the undertaking at Hopkinton cannot be measured financially. We feel, however, that the Center has been entirely responsible for returning to their homes, or to employment, twelve patients of this group. I would like to cite the case of one patient as typical of the kind of work we are trying to do at the Center. This patient in 1922 was diagnosed as a probable chronic case needing institutional care indefinitely. It was thought that the only way in which she could get along in the community was by having almost constant supervision or attention. This patient has been out of the hospital since June, 1922. She has spent about half of this time at the Occupational Therapy Center, and the other half she has lived outside, doing efficient work in a home where she is understood and allowance made for her little twists. She has not asked the State for any assistance whatever since she was placed at the Center. Based on the weekly per capita cost for patients at the hospital, had this patient remained in the hospital during the period she has been employed or at the Center, it would have cost the State of Massachusetts in the neighborhood of \$1,000 for her maintenance. Not only has the State been saved that amount, but the patient has been happy and contented and a contributing factor in the economic world. The work of the patients in the Center is becoming more widely known all the time, and we are hoping that it will become so well established in time that it will run without the direction of the Social Service Department. During this past year the Permanent Charity Fund Incorporated again placed its confidence in the Center and its ultimate success by donating \$500, to be used for three purposes, as follows:— (1) To supplement the board of patients who are unable to pay, either by themselves or with the help of relatives; (2) To pay for the part time service of an occupational therapist; and (3) To help in general running expenses, buying material, etc., to keep the work going. About \$1,000 has been taken in for work done by the patients, over \$850 of this amount having been returned to the patients. All of the patients who have had the benefit and pleasure of the Center have needed just this stepping stone from the hospital to normal life. They were ready to leave the hospital but were showing some little twists, some little peculiarities that might be misunderstood were they not in an environment where mental illness was recognized. The patients were at the Center for periods varying from two weeks to the full year. Those who have left, with two exceptions, have fitted in happily and comfortably with their environment. One patient has been returned for further hospital care. One patient returned to the hospital, but only temporarily until a home can be found for her. She was not contented in the country. The Occupational Therapy Center needs more funds. It is supported almost entirely by private contributions. We close the year with a promise of \$500 from the Committee of the Permanent Charity Fund Incorporated. We now have the full time services of an occupational therapist,—the salary being contributed by Mrs. L. Vernon Briggs. The financial side of the undertaking is

directed by Mr. William F. Whittemore, representing the committee in charge. This relieves the Social Service Department of that responsibility.

Industrial work for women in the East Group was carried on under the direction of Miss Hilda B. Young until her resignation on October 25, 1924, since which time it has been in charge of Miss Madge B. Lytell. The work consists of basketry, rug making, weaving, lace making, embroidery, knitting, crocheting, sewing, mending, etc., and the estimated value of the articles produced in this department during the year was \$11,961.84. Mr. James F. Hurley has continued in charge of the industrial work for men throughout the year. This is carried on entirely in the basement of the B Building in the West Group, and includes shoe repairing and various other repair work, the manufacture of several different kinds of brushes, brooms, coat hangers, hats and numerous other articles. The value of articles produced during the year is estimated at \$9,629.42. The articles produced in the occupational and industrial departments in the hospital for the year represented a total valuation of \$21,591.26.

#### AGRICULTURAL ACTIVITIES FOR THE YEAR.

Mr. Lawrence J. Olsen has had charge of the work of the farm for the past year. A total of 139 acres was under cultivation. This consisted of 37 acres devoted to gardening and 9 acres plowed and sowed to grass, in addition to 89 acres of meadowland and 4 acres of orchards and small fruits. The estimated value of farm products during the year was \$16,298.24.

#### FINANCIAL STATEMENT.

The maintenance appropriation for the year was \$761,290.00. This was supplemented by allotments of \$6,145.78 and \$4.60 brought forward from the preceding year, making a total of \$767,440.38. The maintenance expenditures of the hospital for the year were as follows:—

	Amount Expended	Per Capita	Percentage of Total
Personal Services .....	\$348,736.11	\$165.119	46.50
Travel, transportation and office expenses .....	7,223.83	3.420	.96
Food .....	172,086.61	81.479	22.94
Religious instruction .....	2,099.99	.994	.28
Clothing and materials .....	29,701.66	14.063	3.96
Furnishings and household supplies .....	43,922.66	20.797	5.86
Medical and general care .....	23,109.54	10.941	3.08
Heat, light and power .....	79,198.05	37.500	10.56
Farm .....	5,111.02	2.420	.68
Stable, garage and grounds .....	9,912.31	4.693	1.32
Repairs, ordinary .....	15,598.94	7.386	2.08
Repairs and renewals .....	13,312.35	6.303	1.78
<b>TOTAL .....</b>	<b>\$750,013.07</b>	<b>\$355.115</b>	<b>100.00</b>

Based on the average daily population of the hospital (2112.03), the per capita cost of maintenance for the year was \$335.115, or \$6.829 per week. The per capita cost for the year 1923 was \$356.187, or \$6.849 per week. An important factor in keeping up the cost of maintenance is the large proportion of infirmary and bed patients cared for in this institution. Another item is our lack of agricultural facilities and the absence of a dairy. Owing to the fact that our old ward buildings are made up of small units and consist largely of single rooms, a greater number of employees and more supervision are required than would be necessary in buildings of another type where only custodial care is needed. No buildings designed for purely custodial patients in considerable numbers have ever been erected at this institution. The cost of maintaining the old buildings erected many years ago by the city of Boston increases each year.

#### GENERAL OPERATIONS FOR THE YEAR.

As a result of the serious difficulties encountered in burning the fuel purchased for our use, the engineer of the Commission on Administration and Finance recommended the installation of hand stokers and we were allowed an item of \$3,000 for this purpose. These were installed during the winter and resulted in a considerable increase in efficiency. It would be very desirable to complete the equip-



ment of the power plant with these stokers and install three under the remaining boilers.

The interior of the East Group kitchen and dining room building was painted during the month of December, 1923, resulting in a very marked improvement in the appearance of that building. The interior of the West Group kitchen and dining room building was also painted during the winter.

The Superintendent's house on Canterbury Street, an appropriation for which was rendered available by Chapter 126 of the Acts of 1923, was completed during the summer and occupied on October 24, 1924.

Mr. Henry T. Shay, chief supervisor, was assaulted very unexpectedly on December 28, 1923, by a patient in the West Group. The patient in question, who had shown no tendency toward violence at any time before, made a sudden attack on Mr. Shay and stabbed him in the back with a vegetable knife which he was using in the scullery room of the West Group kitchen. After a long illness and a slow convalescence, Mr. Shay finally made a complete recovery, although he narrowly escaped losing his life.

Mr. Amos H. Mason, the assistant head farmer of the hospital, while engaged in cutting down some dead chestnut trees on Canterbury Street, was struck in the eye by a piece of metal, on December 26. He was disabled for some months as a result of this injury and only recovered after the enucleation of the injured eye.

Two additional drying tumblers, which were purchased during the preceding financial year, were placed in full operation in the laundry in January, 1924, and have resulted in a material increase in the efficiency of the laundry service. The most desirable result of this change has been to do away with the necessity of drying any clothing in the rear of the laundry building, something which we have been obliged to do for many years.

During the month of February, 1924, as a result of the purchase of a radio outfit, loud speakers were installed in the D, E and F buildings in the East Group and the patients since that time have been furnished with the daily program broadcasted from the Shepard Stores. These concerts are very much enjoyed by the patients. There is no question as to the desirability of continuing this installation throughout the various ward buildings of the hospital. The patients particularly enjoy the church services on Sunday.

Practically all the rooms on the first floor of the administration building in the East Group were repainted during the year.

Lieutenant Governor Fuller and the Executive Council visited the hospital on February 27, and spent the entire afternoon inspecting the various buildings of the institution.

A meeting of the social service workers representing the various State hospitals was held at the East Group chapel on February 29, under the direction of Miss Hannah Curtis, representing the Department of Mental Diseases. About forty-five social workers were present. They visited the various wards of the hospital and inspected the institution throughout.

Considerable work was done during the spring in repainting the interior of the D Building in the West Group.

The grading around the East Group nurses' home was completed during the summer, resulting in a very general improvement in the appearance of the East Group.

Twenty-nine of our ex-service men were transferred to Veterans' Hospital No. 95 at Northampton on May 20.

The Superintendent represented the hospital at the annual meeting of the American Psychiatric Association, which was held at Atlantic City from June 2 to 9 inclusive.

A portable x-ray machine was installed in Building F of the West Group during the summer and it has been of great value in the diagnosis of cases in the entire institution.

Filling in of the space between the East Group buildings and Morton Street progressed steadily, although rather slowly, during the summer, owing to the fact that comparatively few ashes are available during that season of the year. The coming winter should, however, finish this work.

I regret to report the death on October 16 of Mrs. Minnie Hurley, who had been employed at the institution since May 26, 1890. Mrs. Hurley was run over by an automobile while attempting to cross Blue Hill Avenue, and died a few hours later at the City Hospital.

There was a fire in the classroom of the occupational therapy department in Building C of the West Group on Sunday morning, November 2, 1924. As far as could be determined, the fire was due to the presence of oiled rags, the use of which had been prohibited in that place. The fire was extinguished by the hospital employees before the response of the City Department, which, however, did appear promptly. Fortunately, no serious damage resulted and no harm was done to the occupational therapy exhibits in the adjoining rooms, as the fire was confined entirely to the classroom.

Considerable progress was made during the summer in repainting the wards of the B Building in the East Group.

The old wooden steps in front of the E Building in the East Group were removed during the fall and replaced with concrete construction.

Cement walks were also laid in the neighborhood of the West Group kitchen and dining room building.

The grading on the site of the old pond in the East Group was completed during the summer, as a result of materials contributed by various building contractors, and the old pond is now a thing of the past. This is a very desirable improvement, as it was a constant invitation to depressed patients to commit suicide. Owing to the fact that we were provided with a new ice machine during the preceding year, the absence of the ice removed from the old pond has made no difference to the hospital.

The usual visits were made during the year by representatives of the Department of Mental Diseases and the Legislative Committee on Public Institutions.

Attention should be called again to the desirability of acquiring 150,000 square feet of land south of Canterbury Street, adjoining the West Group. This is the only part of the site bounded by Canterbury Street on the north, Harvard Street on the south, Morton Street on the east, and Walk Hill Street on the west that has not as yet been acquired by the State. The buildings on this land could be used to very good advantage and would facilitate the removal of the barns and other objectionable structures adjoining the administration building in the East Group. The desirability of acquiring this land was referred to by the joint special legislative committee on public institutions in their report of March, 1920, as shown in Senate Document No. 450.

The condition of the Canterbury Branch of Stony Brook, referred to last year, has not improved. The channel of this brook has not been thoroughly cleaned out for several years, and is overgrown with weeds and very badly obstructed. The brook not infrequently overflows its banks, and from 30 to 40 acres of hospital land have been covered with water at times. It occasionally gets into the steam conduits, and has flooded the pump room of the power house to a depth of a foot and a half. At any time such an overflow may render it impossible to provide heat for the West Group, which now has a capacity of over 1,500 beds. Something should be done as soon as possible to relieve this situation. The conduit built by the city extends to the point where the brook enters the hospital property on Harvard Street. The brook runs through the grounds for a distance of approximately 4,500 feet. The conduit should be extended for at least 2,200 feet to the point where the hospital road crosses the brook in the West Group. This would reclaim 30 or 40 acres of valuable land, worth about \$260,000. The present condition of the brook was intended only as a temporary arrangement, the work of enclosing it as originally undertaken by the city being incomplete. The joint special committee of the Legislature reporting on public institutions in 1920 referred to this as a serious matter requiring immediate attention.

## NEEDS OF THE HOSPITAL FOR THE COMING YEAR.

The following items relating to construction deemed necessary for the coming year have been submitted to the Department of Mental Diseases:—

1. Administration Building and Staff Quarters (requested in 1919, 1920, 1921, 1922 and 1923) . . . . .	\$180,000
2. Extension to Sewer, Water and Steam Lines (requested in 1920, 1921, 1922 and 1923) . . . . .	13,000
3. Addition to Garage (requested in 1920, 1921, 1922 and 1923) . . . . .	4,200
4. Purchase of Additional Land (requested in 1920, 1921, 1922 and 1923) . . . . .	30,000
5. Concrete Pavement in front of Power House (requested in 1920, 1921, 1922 and 1923) . . . . .	10,000
6. Concrete Platform for Coal Storage (requested in 1920, 1921, 1922 and 1923) . . . . .	6,000
7. Cottage for Farm Employees (requested in 1921, 1922 and 1923) . . . . .	30,000
Total . . . . .	\$273,200

1. *Administration Building and Staff Quarters.*—The offices of the institution are now located in an old building purchased by the city of Boston over fifty years ago for use as an almshouse. This is a two and one-half story building constructed of wood throughout, contains numerous exposed electric wires, and has several wooden stairways running from the basement to the attic. This building is located within fifty yards of a large wooden barn containing hay, and is surrounded by other non-fireproof structures, the nearest being the chapel and a building occupied by patients. Its presence is a serious menace, and in case of fire would threaten the loss of the entire East Group. The building now houses over fifty employees, thirty of whom are living in the attic. The offices of the hospital should be in a central location. It is very inconvenient for relatives and friends of the patients to come from Walk Hill Street to the present administration building. The hospital has now reached a stage of development where an administration building is urgently needed. We do not propose to demolish the old wooden building now used for office purposes, but suggest removing it to other locations where it can be remodeled and used for housing employees, etc. In erecting an administration building we propose to provide additional accommodations for the staff on the second floor. Attention should be called to the fact that no new construction has ever been provided at the institution as yet for the exclusive use of the medical officers of the hospital.

2. *Extension to Sewer, Water and Steam Lines.*—When a new administration building is erected an extension to the sewer, water and steam lines of the institution will be necessary. Provision should be made for this at as early a moment as possible. When completed, this extension will also provide for several other buildings.

3. *Addition to Garage.*—No garage has ever been built for the hospital. We are using the old West Group boiler house, remodeled for this purpose, at the present time. It is, however, not large enough, and additional space is badly needed.

4. *Purchase of Additional Land.*—It has long been felt that it would be desirable for the hospital to acquire 150,000 square feet of land adjoining our property on the north. This would furnish a site for future barns and other out-buildings which has been needed for a great many years.

5. *Concrete Pavement in Front of Power House.*—There is a granite block pavement in front of the laundry at the present time. This is not laid in cement and will have to be taken up soon. When relaid, this should be extended to the front of the power house and carried as far as the storehouse. The heavy trucks now delivering coal to the power house render the installation of some kind of a serviceable pavement necessary. The cheapest pavement available will be concrete, at an estimated cost of \$10,000.

6. *Concrete Platform for Coal Storage.*—The recommendations of the consulting engineers representing the Department of Mental Diseases show that we should be able to take care of at least 6,000 tons of coal at one time. At present this is done by spreading the coal over a large space near the power house. This land is low and is frequently overflowed by water from the Canterbury Branch of Stony Brook. A considerable loss would be prevented by storing this coal on a cement platform (approximately 20,000 square feet).

7. *Cottage for Farm Employees.*—Attention has been called to the necessity of further provision for the housing of farm employees. The building now used for this purpose in the West Group is one which has been in constant use since 1904. It has been remodeled throughout on several occasions and cannot be repaired further to good advantage. The building inspectors of the Department of Public Safety have refused to certify it for occupancy, and it should be replaced at the earliest possible moment.

In connection with the requests for these appropriations, it is interesting to note the following recommendations relative to the Boston State Hospital, made by the Committee on Public Institutions as shown in Senate Document No. 211 (1924):

“Concrete platform for coal storage. At present the coal is stored in the ground which is low and frequently overflowed. A proper platform would save money.

“An Administration Building and Staff Quarters constitute a much needed addition to this institution and is strongly recommended.

“It is necessary to secure additional land at this institution owing to the overcrowded condition and there is available (and should be acquired at once) a lot containing 150,000 square feet now owned by the Forest Hills Cemetery. The buildings on this land could be utilized to good advantage.

“It is also advisable to build an addition to the Garage. The present facilities for storage are inadequate.”

Respectfully submitted,

JAMES V. MAY, *Superintendent.*

Nov. 30, 1924.

## VALUATION

NOVEMBER 30, 1924.

## REAL ESTATE

Land, 233 acres .....	\$576,680.00
Buildings .....	2,704,508.58
	<u>\$3,281,188.58</u>

## PERSONAL PROPERTY

Travel, Transportation, and Office Expenses .....	\$1,897.00
Food .....	19,375.48
Clothing and Materials .....	26,552.50
Furnishings and Household Supplies .....	197,365.62
Medical and General Care .....	6,872.31
Heat, Light and Power .....	27,714.97
Farm .....	8,429.95
Garage, Stables and Grounds .....	6,750.54
Repairs .....	8,601.67
	<u>\$303,560.04</u>

## SUMMARY

Real Estate .....	\$3,281,188.58
Personal Property .....	303,560.04
	<u>\$3,584,748.62</u>

## TREASURER'S REPORT

*To the Commissioner of the Department of Mental Diseases.*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1924.

## CASH ACCOUNT

## Receipts

<i>Income</i>	
Board of inmates:	
Private .....	\$34,821.58
Reimbursements, insane .....	85,288.21
	<u>\$120,109.79</u>
Personal Services:	
Reimbursement from Board of Retirement .....	217.06
Sales:	
Travel, Transportation and Office Expenses .....	\$111.94
Food .....	543.81
Clothing and Materials .....	51.22
Furnishings and Household Supplies .....	79.18
Heat, Light and Power .....	10.21
Farm:	
Hay .....	240.00
Repairs, Ordinary .....	59.88
	<u>1,096.24</u>
Miscellaneous:	
Interest on bank balances .....	\$497.86
Interest on patients' fund .....	104.01
	<u>601.87</u>
TOTAL INCOME .....	<u>\$122,024.96</u>

## MAINTENANCE

Balance from 1922, brought forward .....	\$4.60
Balance from previous year, brought forward .....	1,145.78
Appropriation, current year .....	761,290.00
Additional appropriation, Chapter 510, Acts 1924, Item 455-B .....	5,000.00
	<u>\$767,440.38</u>
TOTAL .....	750,013.07
Expenses (as analyzed below) .....	<u>\$17,427.31</u>
Balance reverting to Treasury of Commonwealth .....	

*Analysis of Expenses*

Personal Services .....	\$348,736.11
Religious Instruction .....	2,099.99
Travel, Transportation and Office Expenses .....	7,223.83
Food .....	172,086.61
Clothing and Materials .....	29,701.66
Furnishings and Household Supplies .....	43,922.66
Medical and General Care .....	23,109.54
Heat, Light and Power .....	79,198.05
Farm .....	5,111.02
Garage, Stable and Grounds .....	9,912.31
Repairs, Ordinary .....	15,598.94
Repairs and Renewals .....	4,048.97
Tools and Machinery .....	13,312.35
<b>Total Expenses for Maintenance .....</b>	<b>\$750,013.07</b>

**SPECIAL APPROPRIATIONS**

Balance December 1, 1923 .....	\$12,384.19
Appropriations for current year .....	4,400.00
<b>Total .....</b>	<b>\$16,784.19</b>
Expended during the year (see statement below) .....	\$9,892.10
Reverting to Treasury of Commonwealth .....	864.18
<b>Balance November 30, 1924, carried to next year .....</b>	<b>\$6,027.91</b>

OBJECT	Act or Resolve	Whole Amount	Expended During Fiscal Year	Total Expended to Date	Balance at End of Year
Dining Room, East Group .....	211-1919 629-1920	\$152,000.00		\$150,579.32	\$1,420.68
Veranda C .....	129-1922	8,000.00		7,991.90	8.10*
Veranda G .....	129-1922	5,000.00		4,881.07	118.93*
Addition to Bakery .....	129-1922	36,000.00		35,977.55	22.45*
Addition to Refrigerating Room .....	129-1922	23,000.00	\$378.80	22,285.30	714.70*
Superintendent's House .....	123-1923	15,000.00	9,513.30	14,792.77	207.23
Additional Fire Protection .....	510-1924	4,400.00			4,400.00
		\$243,400.00	\$9,892.10	\$236,507.91	\$6,892.09

Balance reverting to Treasury of the Commonwealth (mark items with \*)..... \$864.18  
 Balance carried to next year..... 6,027.91

**Total, as above ..... \$6,892.09**

**PER CAPITA**

During the year the average number of inmates has been 2,112.03  
 Total cost for maintenance, \$750,013.07.  
 Equal to a weekly per capita cost of \$6.829. (52 weeks to year.)  
 Receipt from sales, \$1,096.24.  
 Equal to a weekly per capita of \$.0099.  
 All other institution receipts, \$120,928.72.  
 Equal to a weekly per capita of \$1.1011.  
 Net weekly per capita \$5.718.

Respectfully submitted,  
**ADELINE J. LEARY**  
*Treasurer*

# STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION.

PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES.

TABLE 1. *General Information.*

1. Date of opening as an institution for the insane, Dec. 11, 1839.

2. Type of institution: State (since Dec. 1, 1908).

3. Hospital plant:

Real estate including buildings.....	\$3,281,188.58
Personal property .....	303,560.04
<b>Total .....</b>	<b>\$3,584,748.62</b>

Total acreage of hospital property owned, 233 acres.

(Includes grounds, farm and garden and sites occupied by buildings)

Additional acreage rented, None.

Total acreage under cultivation during previous year, 139 acres.

(Includes land owned and rented)

4. Officers and Employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	Males	Females	Total	Males	Females	Total
Superintendents .....	1	—	1	—	—	—
Assistant Superintendent.....	1	—	1	—	—	—
Assistant physicians .....	5	4	9	2	—	2
Pathologist .....	—	—	—	1	—	1
<b>Total physicians .....</b>	<b>7</b>	<b>4</b>	<b>11</b>	<b>3</b>	<b>—</b>	<b>3</b>
Stewards .....	1	—	1	—	—	—
Resident dentists .....	1	—	1	—	—	—
Graduate nurses .....	—	15	15	11	7	18
Other nurses and attendants.....	103	124	227	—	—	—
Teachers of occupational therapy .....	—	5	5	—	—	—
Social workers .....	—	3	3	—	—	—
All other officers and employees .....	85	73	158	—	3	3
<b>Total officers and employees .....</b>	<b>197</b>	<b>224</b>	<b>421</b>	<b>14</b>	<b>10</b>	<b>24</b>

5. Census of Patient Population at end of year, Sept. 30, 1924:

	Actually in Institution			Absent from Institution but Still on Books		
	Males	Females	Total	Males	Females	Total
White, Insane .....	836	1187	2023	160	192	352
Colored, Insane .....	24	31	55	2	11	13
<b>Total .....</b>	<b>860</b>	<b>1218</b>	<b>2078</b>	<b>162</b>	<b>203</b>	<b>365</b>

6. Patients employed in industrial classes or in general hospital work on Sept. 30, 1924 .....

Males	Females	Total
529	648	1177

7. Average daily number of all patients actually in institution during year

890.48	1216.17	2106.65
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TABLE 2. *Financial Statement.*

See treasurer's report for data requested under this table.

TABLE 3. *Movement of Population for the Year Ending September 30, 1924.*

	INSANE			TEMPORARY CARE			TOTAL		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books at beginning of institution year . .	1,043	1,414	2,457	3	2	5	1,046	1,416	2,462
Admissions during the year:									
First admissions (including 2 males and 1 female committed from temporary care of preceding year) . . . . .	223	204	427	14	17	31	237	221	458
Readmissions (including 1 male and 1 female committed from temporary care of preceding year) . . .	55	53	108	14	5	19	69	58	127
Transferred from other institutions for mental diseases . . . . .	14	18	32	0	0	0	14	18	32
Total received during the year . . . . .	292	275	567	28	22	50	320	297	617
Total under treatment during the year . . . . .	1,335	1,689	3,024	31	24	55	1,366	1,713	3,079
Discharged from books during the year:									
As recovered . . . . .	30	27	57	4	1	5	34	28	62
As unimproved . . . . .	62	81	143	0	2	2	62	83	145
As unimproved . . . . .	11	25	36	11	11	22	22	36	58
As without psychosis . . . . .	4	6	10	9	5	14	13	11	24
Transferred to other institutions for mental diseases . .	97	5	102	0	1	1	97	6	103
Died during the year . . . . .	111	125	236	2	1	3	113	126	239
Committed from temporary care . . . . .	0	0	0	3	2	5	3	2	5
Total discharged and died . . . . .	315	269	584	29	23	52	344	292	636
Patients remaining on books at end of institution year .	1,020	1,420	2,440	2	1	3	1,022	1,421	2,443



TABLE 4. *Nativity of First Admissions and of Parents of First Admissions for the Year Ending September 30, 1924.*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Total	Fathers	Mothers	Total
United States.....	131	104	235	37	32	69	32	34	66
Austria.....	0	2	2	2	2	4	2	1	3
Belgium.....	1	0	1	1	1	2	—	—	—
*Canada.....	10	15	25	5	13	18	16	14	30
Cuba.....	0	1	1	—	—	—	1	0	1
Denmark.....	—	—	—	1	0	1	—	—	—
England.....	8	2	10	10	10	20	6	4	10
Germany.....	2	2	4	3	2	5	3	2	5
Holland.....	—	—	—	—	—	—	1	1	2
Hungary.....	—	—	—	—	—	—	1	1	2
Ireland.....	33	50	83	76	73	149	87	90	177
Italy.....	10	9	19	13	13	26	11	11	22
Jugo-Slavia.....	0	1	1	1	1	2	—	—	—
Norway.....	1	2	3	1	1	2	3	3	6
Poland.....	4	0	4	4	4	8	1	1	2
Russia.....	13	10	23	18	17	35	12	12	24
Scotland.....	3	2	5	6	3	9	3	3	6
Spain.....	—	—	—	1	1	2	—	—	—
Sweden.....	1	3	4	1	1	2	3	3	6
Switzerland.....	—	—	—	—	—	—	1	0	1
Turkey in Asia.....	2	0	2	1	1	2	—	—	—
Wales.....	—	—	—	1	0	1	1	0	1
†West Indies.....	0	1	1	—	—	—	—	—	—
Unascertained.....	4	0	4	41	48	89	20	24	44
Total.....	223	204	427	223	223	446	204	204	408

\* Includes Newfoundland.

† Except Cuba and Porto Rico.

TABLE 5. *Citizenship of First Admissions for the Year Ending September 30, 1924.*

	M.	F.	T.
Citizens by birth.....	131	104	235
Citizens by naturalization.....	49	39	88
Aliens.....	23	46	69
Citizenship unascertained.....	20	15	35
Total.....	223	204	427

TABLE 6. *Psychoses of First Admissions for the Year Ending September 30, 1924.*

	M.	F.	T.	TOTAL		
				M.	F.	T.
Traumatic psychoses.....	—	—	—	1	0	1
Senile psychoses, total.....	—	—	—	21	39	60
Simple deterioration.....	10	16	26	—	—	—
Depressed and agitated types.....	2	4	6	—	—	—
Paranoid states.....	8	19	27	—	—	—
On basis of psychopathic personality.....	1	0	1	—	—	—
With cerebral arteriosclerosis.....	—	—	—	45	37	82
General paralysis.....	—	—	—	34	7	41
With cerebral syphilis.....	—	—	—	2	0	2
With Huntington's chorea.....	—	—	—	0	0	0
With brain tumor.....	—	—	—	1	1	2
With other brain or nervous diseases, total.....	—	—	—	5	3	8
Paralysis agitans.....	0	1	1	—	—	—
Multiple sclerosis.....	0	1	1	—	—	—
Tabes dorsalis.....	2	0	2	—	—	—
Other diseases.....	3	1	4	—	—	—
Alcoholic, total.....	—	—	—	28	11	39
Delirium tremens.....	4	0	4	—	—	—
Korsakow's psychosis.....	2	2	4	—	—	—
Acute hallucinosis.....	9	2	11	—	—	—
Other types, acute or chronic.....	13	7	20	—	—	—

TABLE 6. *Psychoses of First Admissions for the Year Ending September 30, 1924.*  
Concluded

	M.	F.	T.	TOTAL		
				M.	F.	T.
Due to drugs and other exogenous toxins, total				2	2	4
Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined	2	2	4			
With pellagra				0	0	0
With other somatic diseases, total				2	8	10
Delirium with infectious diseases	0	1	1			
Post-infectious psychosis	0	1	1			
Cardio-renal diseases	0	1	1			
Other diseases or conditions	2	5	7			
Manic-depressive, total				29	37	66
Manic type	9	4	13			
Depressive type	18	29	47			
Other types	2	4	6			
Involution melancholia				5	4	9
Dementia praecox, total				26	30	56
Paranoid type	8	18	26			
Catatonic type	9	4	13			
Hebephrenic type	6	6	12			
Type undetermined	3	2	5			
Paranoia or paranoid conditions				5	11	16
Epileptic, total				1	0	1
Clouded states	1	0	1			
Psychoneuroses and neuroses, total				4	2	6
Hysterical type	1	0	1			
Psychasthenic type (anxiety and obsessive forms)	1	1	2			
Neurasthenic type	2	1	3			
With psychopathic personality				4	0	4
With mental deficiency				3	6	9
Undiagnosed psychoses				3	5	8
Without psychosis, total				2	1	3
Psychopathic personality without psychosis	0	1	1			
Mental deficiency without psychosis	2	0	2			
Others	0	0	0			
Total				223	204	427

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924.*

RACE	Total			Traumatic			Senile			With cerebral arterio-sclerosis			General paralysis			With cerebral syphilis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	11	4	15	-	-	-	-	-	-	2	0	2	5	1	6	1	0	1
Dutch and Flemish	1	1	2	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-
English	11	12	23	-	-	-	-	-	-	4	1	5	0	2	2	-	-	-
French	1	1	2	-	-	-	0	1	1	-	-	-	1	0	1	-	-	-
German	2	3	5	-	-	-	0	1	1	1	0	1	1	0	1	-	-	-
Hebrew	17	10	27	-	-	-	-	-	-	4	2	6	1	0	2	1	0	1
Irish	89	106	195	1	0	1	11	20	31	18	22	40	13	2	15	-	-	-
Italian*	14	11	25	-	-	-	2	4	6	2	2	4	1	0	1	-	-	-
Lithuanian	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magyar	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian†	3	6	9	-	-	-	1	1	2	0	1	1	-	-	-	-	-	-
Scotch	4	6	10	-	-	-	1	2	3	1	0	1	-	-	-	-	-	-
Slavonic‡	7	3	10	-	-	-	-	-	-	1	0	1	1	0	1	-	-	-
Spanish	1	0	1	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-
Syrian	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed	52	26	78	-	-	-	6	7	13	10	4	14	8	0	8	-	-	-
Race unascertained	7	12	19	-	-	-	0	3	3	1	5	6	1	2	3	-	-	-
TOTAL	223	204	427	1	0	1	21	39	60	45	37	82	34	7	41	2	0	2

\*Includes "North" and "South."

†Norwegians, Danes and Swedes.

‡Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924—Continued.*

RACE	With Huntington's chorea			With brain tumor			With other brain or nervous diseases			Alcoholic			Due to drugs and other exogenous toxins			With pellagra		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) .....	-	-	-	-	-	-	-	-	-	0	2	2	-	-	-	-	-	-
Dutch and Flemish .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English .....	-	-	-	1	0	1	1	0	1	0	1	1	-	-	-	-	-	-
French .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew .....	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-
Irish .....	-	-	-	-	-	-	1	1	2	16	8	24	0	1	1	-	-	-
Italian* .....	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-
Lithuanian .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magyar .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian† .....	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-
Scotch .....	-	-	-	-	-	-	0	1	1	1	0	1	-	-	-	-	-	-
Slavonic‡ .....	-	-	-	-	-	-	1	1	2	2	0	2	-	-	-	-	-	-
Spanish .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed .....	-	-	-	0	1	1	-	-	-	7	0	7	1	1	2	-	-	-
Race unascertained... ..	-	-	-	-	-	-	-	-	-	1	0	1	1	1	0	1	-	-
TOTAL .....	0	0	0	1	1	2	5	3	8	28	11	39	2	2	4	0	0	0

Includes "North" and "South."

†Norwegians, Danes and Swedes.

‡Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924—Continued.*

RACE	With other somatic diseases			Manic-depressive			Involution melan-cholia			Dementia praecox			Paranoia and paranoid conditions			Epileptic psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) .....	-	-	-	-	-	-	-	-	-	1	0	1	1	1	2	-	-	-
Dutch and Flemish .....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English .....	-	-	-	2	3	5	1	0	1	0	2	2	0	2	2	-	-	-
French .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German .....	-	-	-	0	1	1	-	-	-	0	1	1	-	-	-	-	-	-
Hebrew .....	0	1	1	2	2	4	-	-	-	5	3	8	-	-	-	-	-	-
Irish .....	0	2	2	13	22	35	3	2	5	6	18	24	2	4	6	-	-	-
Italian* .....	-	-	-	3	2	5	0	1	1	4	0	4	1	2	3	-	-	-
Lithuanian .....	-	-	-	0	1	1	-	-	-	2	1	3	-	-	-	-	-	-
Magyar .....	-	-	-	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian† .....	0	1	1	-	-	-	0	1	1	1	0	1	0	1	1	-	-	-
Scotch .....	-	-	-	1	1	2	-	-	-	0	2	2	-	-	-	-	-	-
Slavonic‡ .....	-	-	-	1	2	3	-	-	-	-	-	-	1	0	1	-	-	-
Spanish .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian .....	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-
Mixed .....	1	3	4	6	2	8	1	0	1	6	2	8	0	1	1	1	0	1
Race unascertained... ..	1	0	1	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-
TOTAL .....	2	8	10	29	37	66	5	4	9	26	30	56	5	11	16	1	0	1

\*Includes "North" and "South."

†Norwegians, Danes and Swedes.

‡Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924—Concluded.*

RACE	Psycho-neuroses and neuroses			With psychopathic personality			With mental deficiency			Un-diagnosed psychoses			Without psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) .....	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-
Dutch and Flemish .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English .....	-	-	-	1	0	1	-	-	-	1	1	2	-	-	-
French .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew .....	2	0	2	-	-	-	0	2	2	-	-	-	-	-	-
Irish .....	1	0	1	-	-	-	2	3	5	1	1	2	1	0	1
Italian* .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuanian .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magyar .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian† .....	-	-	-	-	-	-	-	-	-	0	1	1	-	-	-
Scotch .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic‡ .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed .....	1	1	2	2	0	2	1	1	2	0	2	2	1	1	2
Race unascertained.....	0	1	1	1	0	1	-	-	-	-	-	-	-	-	-
TOTAL .....	4	2	6	4	0	4	3	6	9	3	5	8	2	1	3

\*Includes "North" and "South."

†Norwegians, Danes and Swedes.

‡Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924.*

PSYCHOSES	TOTAL			Under 15 years			15—19 years			20—24 years			25—29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic .....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile .....	21	39	60	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis .....	45	37	82	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis .....	34	7	41	1	0	1	-	-	-	1	0	1	3	0	3
5. With cerebral syphilis .....	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor .....	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases .....	5	3	8	-	-	-	-	-	-	0	1	1	-	-	-
9. Alcoholic .....	28	11	39	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins .....	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases .....	2	8	10	-	-	-	-	-	-	1	1	2	0	1	1
13. Manic-depressive .....	29	37	66	-	-	-	6	2	8	1	2	3	2	3	5
14. Involution melancholia .....	5	4	9	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox .....	26	30	56	-	-	-	3	3	6	11	3	14	6	7	13
16. Paranoia or paranoid conditions .....	5	11	16	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses .....	1	0	1	-	-	-	-	-	-	1	0	1	-	-	-
18. Psychoneuroses and neuroses .....	4	2	6	-	-	-	-	-	-	1	0	1	-	-	-
19. With psychopathic personality .....	4	0	4	-	-	-	-	-	-	1	0	1	-	-	-
20. With mental deficiency .....	3	6	9	-	-	-	1	1	2	1	1	2	0	2	2
21. Undiagnosed psychoses .....	3	5	8	-	-	-	0	1	1	0	1	1	-	-	-
22. Without psychosis .....	2	1	3	-	-	-	-	-	-	-	-	-	1	0	1
TOTAL .....	223	204	427	1	0	1	10	7	17	18	9	27	12	13	25

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924—Continued.*

PSYCHOSES	30—34 years			35—39 years			40—44 years			45—49 years			50—54 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile .....	-	-	-	-	-	-	1	0	1	0	1	1	1	0	3
3. With cerebral arteriosclerosis .....	-	-	-	-	-	-	-	-	-	1	0	1	3	0	3
4. General paralysis .....	4	0	4	6	2	8	6	1	7	3	2	5	4	1	5
5. With cerebral syphilis .....	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-
6. With Huntington's chorea .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor .....	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1
8. With other brain or nervous diseases .....	2	1	3	1	0	1	-	-	-	-	-	-	1	1	2
9. Alcoholic .....	6	0	6	4	1	5	4	2	6	3	4	7	2	1	3
10. Due to drugs and other exogenous toxins .....	0	1	1	-	-	-	0	1	1	1	0	1	1	0	1
11. With pellagra .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases .....	-	-	-	0	1	1	-	-	-	0	1	1	1	0	1
13. Manic-depressive .....	7	4	11	2	11	13	2	3	5	3	3	6	3	8	11
14. Involution melancholia .....	-	-	-	-	-	-	-	-	-	0	1	1	0	2	2
15. Dementia praecox .....	2	6	8	4	6	10	0	3	3	-	-	-	0	1	1
16. Paranoia or paranoid conditions .....	0	1	1	-	-	-	1	5	6	1	1	2	-	-	-
17. Epileptic psychoses .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses .....	1	0	1	-	-	-	1	0	1	-	-	-	1	0	1
19. With psychopathic personality .....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency .....	-	-	-	1	0	1	-	-	-	0	1	1	-	-	-
21. Undiagnosed psychoses .....	0	1	1	-	-	-	0	1	1	1	0	1	-	-	-
22. Without psychosis .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL .....	23	14	37	18	21	39	15	16	31	14	14	28	18	14	32

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924—Concluded.*

PSYCHOSES	55—59 years			60—64 years			65—69 years			70 years and over			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic .....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile .....	1	0	1	5	3	8	2	2	4	11	33	44	-	-	-
3. With cerebral arteriosclerosis .....	2	4	6	8	6	14	11	6	17	20	21	41	-	-	-
4. General paralysis .....	4	1	5	1	0	1	-	-	-	1	0	1	-	-	-
5. With cerebral syphilis .....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor .....	-	-	-	0	1	1	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases .....	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-
9. Alcoholic .....	3	0	3	4	2	6	2	0	2	0	1	1	-	-	-
10. Due to drugs and other exogenous toxins .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases .....	-	-	-	0	2	2	0	1	1	0	1	1	-	-	-
13. Manic-depressive .....	1	1	2	-	-	-	1	0	1	1	0	1	-	-	-
14. Involution melancholia .....	2	0	2	3	1	4	-	-	-	-	-	-	-	-	-
15. Dementia praecox .....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia or paranoid conditions .....	1	1	2	0	2	2	2	1	3	-	-	-	-	-	-
17. Epileptic psychoses .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses .....	-	-	-	0	1	1	0	1	1	-	-	-	-	-	-
19. With psychopathic personality .....	-	-	-	-	-	-	-	-	-	2	0	2	-	-	-
20. With mental deficiency .....	-	-	-	0	1	1	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses .....	0	1	1	-	-	-	1	0	1	1	0	1	-	-	-
22. Without psychosis .....	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-
TOTAL .....	16	9	25	21	19	40	19	11	30	38	57	95	0	0	0

TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924.

PSYCHOSES	Total			Illiterate			Reads and Writes*			Common School			High School			College			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic .....	1	0	1	2	4	6	3	5	8	1	0	1	1	1	4	-	-	-	0	1	-
2. Senile .....	21	39	60	45	37	82	34	7	41	15	16	31	3	3	5	-	-	11	11	11	
3. With cerebral arteriosclerosis .....	45	37	82	34	7	41	15	16	31	3	3	5	3	3	5	-	-	2	2	5	
4. General paralysis .....	34	7	41	2	0	2	2	0	2	20	3	23	6	0	6	-	-	1	3	4	
5. With cerebral syphilis .....	2	0	2	0	0	2	0	0	2	-	-	-	-	-	-	-	-	-	-	-	
6. With Huntington's chorea .....	0	0	0	0	1	1	1	1	1	1	0	1	-	-	-	-	-	-	-	-	
7. With brain tumor .....	1	1	2	0	1	1	1	1	1	3	8	11	3	0	3	-	-	1	1	1	
8. With other brain or nervous diseases .....	5	3	8	3	1	4	2	2	3	19	8	27	3	0	3	-	-	1	1	2	
9. Alcoholic .....	28	11	39	4	-	-	-	-	-	1	-	4	-	-	-	-	-	-	0	-	
10. Due to drugs and other exogenous toxins .....	2	0	2	0	0	2	0	0	2	16	28	44	9	1	2	-	-	1	1	-	
11. With pellagra .....	11	0	10	0	1	1	0	1	1	1	5	6	1	1	2	-	-	-	-	-	
12. With other somatic diseases .....	2	8	10	0	2	2	2	2	3	2	4	4	1	1	2	-	-	1	1	2	
13. Manic-depressive .....	29	37	66	0	2	2	0	2	2	17	18	35	6	6	12	-	-	2	3	5	
14. Involution melancholia .....	5	4	9	0	0	2	0	2	2	13	9	22	1	1	2	-	-	1	1	2	
15. Dementia praecox .....	26	30	56	0	1	1	0	2	1	3	9	12	1	0	1	-	-	2	0	2	
16. Paranoia or paranoid conditions .....	5	11	16	-	-	-	1	0	1	2	4	6	2	0	2	-	-	-	-	-	
17. Epileptic psychoses .....	1	0	1	-	-	-	-	-	-	2	3	5	-	-	-	-	-	-	-	-	
18. Psychoneuroses and neuroses .....	4	2	6	-	-	-	-	-	-	3	0	3	-	-	-	-	-	-	0	-	
19. With psychopathic personality .....	4	0	4	0	2	2	2	1	3	1	3	4	-	-	-	-	-	-	-	-	
20. With mental deficiency .....	3	6	9	0	1	1	-	-	-	3	3	6	-	-	-	-	-	-	-	-	
21. Undiagnosed psychoses .....	3	5	8	0	1	1	1	0	1	1	4	6	0	1	1	-	-	1	-	-	
22. Without psychosis .....	2	1	3	-	-	-	1	0	1	1	1	2	0	1	1	-	-	-	-	-	
Total .....	223	204	427	10	25	35	26	21	47	141	118	259	32	15	47	3	1	4	11	24	35

\*Includes those who did not complete fourth grade in school.

TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924.*

PSYCHOSES	Total			Urban			Rural			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic .....	1	0	1	1	0	1	-	-	-	-	-	-
2. Senile .....	21	39	60	21	39	60	-	-	-	-	-	-
3. With cerebral arteriosclerosis .....	45	37	82	45	37	82	-	-	-	-	-	-
4. General paralysis .....	34	7	41	34	7	41	-	-	-	-	-	-
5. With cerebral syphilis .....	2	0	2	2	0	2	-	-	-	-	-	-
6. With Huntington's chorea .....	0	0	0	-	-	-	-	-	-	-	-	-
7. With brain tumor .....	1	1	2	1	1	2	-	-	-	-	-	-
8. With other brain or nervous diseases .....	5	3	8	5	3	8	-	-	-	-	-	-
9. Alcoholic .....	28	11	39	28	11	39	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins .....	2	2	4	2	2	4	-	-	-	-	-	-
11. With pellagra .....	0	0	0	-	-	-	-	-	-	-	-	-
12. With other somatic diseases .....	2	8	10	2	8	10	-	-	-	-	-	-
13. Manic-depressive .....	29	37	66	29	37	66	-	-	-	-	-	-
14. Involution melancholia .....	5	4	9	5	4	9	-	-	-	-	-	-
15. Dementia praecox .....	26	30	56	26	30	56	-	-	-	-	-	-
16. Paranoia or paranoid conditions .....	5	11	16	5	11	16	-	-	-	-	-	-
17. Epileptic psychoses .....	1	0	1	1	0	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses .....	4	2	6	4	2	6	-	-	-	-	-	-
19. With psychopathic personality .....	4	0	4	4	0	4	-	-	-	-	-	-
20. With mental deficiency .....	3	6	9	3	6	9	-	-	-	-	-	-
21. Undiagnosed psychoses .....	3	5	8	3	5	8	-	-	-	-	-	-
22. Without psychosis .....	2	1	3	2	1	3	-	-	-	-	-	-
TOTAL .....	223	204	427	223	204	427	0	0	0	0	0	0

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924.*

PSYCHOSES	Total			Dependent			Marginal			Comfortable			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic .....	1	0	1	-	-	-	1	0	1	-	-	-	-	-	-
2. Senile .....	21	39	60	10	5	15	10	20	0	8	8	1	16	17	
3. With cerebral arteriosclerosis .....	45	37	82	19	6	25	22	9	31	2	9	11	2	13	15
4. General paralysis .....	34	7	41	5	1	6	26	2	28	0	2	2	3	2	5
5. With cerebral syphilis .....	2	0	2	-	-	-	2	0	2	-	-	-	-	-	-
6. With Huntington's chorea .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor .....	1	1	2	-	-	-	1	0	1	-	-	-	0	1	1
8. With other brain or nervous diseases .....	5	3	8	2	2	4	3	1	4	-	-	-	-	-	-
9. Alcoholic .....	28	11	39	3	1	4	25	7	32	-	-	-	0	3	3
10. Due to drugs and other exogenous toxins .....	2	2	4	1	0	1	1	2	3	-	-	-	-	-	-
11. With pellagra .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases .....	2	8	10	0	1	1	1	2	3	0	3	3	1	2	3
13. Manic-depressive .....	29	37	66	3	4	7	24	29	53	1	2	3	1	2	3
14. Involution melancholia .....	5	4	9	1	1	2	1	3	4	1	0	1	2	0	2
15. Dementia praecox .....	26	30	56	7	13	20	17	14	31	1	2	3	1	1	2
16. Paranoia or paranoid conditions .....	5	11	16	1	2	3	4	7	11	0	1	1	0	1	1
17. Epileptic psychoses .....	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0
18. Psychoneuroses and neuroses .....	4	2	6	-	-	-	3	1	4	0	1	1	1	0	1
19. With psychopathic personality .....	4	0	4	-	-	-	4	0	4	-	-	-	-	-	-
20. With mental deficiency .....	3	6	9	0	2	2	1	2	3	0	1	1	2	1	3
21. Undiagnosed psychoses .....	3	5	8	1	2	3	2	2	4	-	-	-	0	1	1
22. Without psychosis .....	2	1	3	2	0	2	-	-	-	0	1	1	-	-	-
TOTAL .....	223	204	427	55	40	95	149	91	240	5	30	35	14	43	57

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924.*

PSYCHOSES	Total			Abstinent			Tem- perate			Intem- perate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic .....	1	0	1	-	-	-	-	-	-	1	0	1	-	-	-
2. Senile .....	21	39	60	4	22	26	4	9	13	6	1	7	7	7	14
3. With cerebral arteriosclerosis .....	45	37	82	4	20	24	12	11	23	16	4	20	13	2	15
4. General paralysis .....	34	7	41	8	3	11	11	1	12	11	2	13	4	1	5
5. With cerebral syphilis .....	2	0	2	-	-	-	-	-	-	2	0	2	-	-	-
6. With Huntington's chorea .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor .....	1	1	2	0	1	1	1	0	1	-	-	-	-	-	-
8. With other brain or nervous diseases .....	5	3	8	-	-	-	3	3	6	1	0	1	1	0	1
9. Alcoholic .....	28	11	39	-	-	-	1	0	1	27	11	38	-	-	-
10. Due to drugs and other exogenous toxins .....	2	2	4	1	0	1	0	1	1	1	1	2	-	-	-
11. With pellagra .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases .....	2	8	10	1	6	7	0	2	2	1	0	1	-	-	-
13. Manic-depressive .....	29	37	66	12	18	30	8	14	22	9	1	10	0	4	4
14. Involution melancholia .....	5	4	9	2	2	4	1	1	2	1	0	1	1	1	2
15. Dementia praecox .....	26	30	56	17	22	39	6	7	13	2	0	2	1	1	2
16. Paranoia or paranoid conditions .....	5	11	16	2	7	9	1	4	5	2	0	2	-	-	-
17. Epileptic psychoses .....	1	0	1	1	0	1	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses .....	4	2	6	3	2	5	1	0	1	-	-	-	-	-	-
19. With psychopathic personality .....	4	0	4	2	0	2	1	0	1	1	0	1	-	-	-
20. With mental deficiency .....	3	6	9	2	3	5	1	2	3	0	1	1	-	-	-
21. Undiagnosed psychoses .....	3	5	8	1	2	3	1	1	2	1	1	2	0	1	1
22. Without psychosis .....	2	1	3	1	1	2	-	-	-	1	0	1	-	-	-
TOTAL .....	223	204	427	61	109	170	52	56	108	83	22	105	27	17	44



TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924.*

PSYCHOSES	Total			Single			Married			Widowed			Separated			Divorced			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic .....	1	0	1	—	—	—	1	0	1	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile .....	21	39	60	6	11	17	8	3	11	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis .....	45	37	82	7	4	11	14	8	22	23	23	45	0	1	1	1	1	1	1	1	2
4. General paralysis .....	34	7	41	10	1	11	22	6	28	—	—	—	1	0	—	—	—	—	—	—	—
5. With cerebral syphilis .....	2	0	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea .....	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor .....	1	1	2	0	1	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases .....	5	3	8	2	1	3	11	2	13	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic .....	28	11	39	13	6	19	11	2	13	3	4	7	0	1	1	1	1	0	1	—	—
10. Due to drugs and other exogenous toxins .....	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra .....	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases .....	2	8	10	1	3	4	12	4	5	0	0	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive .....	29	37	66	15	12	27	12	21	33	0	3	3	0	1	1	2	0	0	—	—	—
14. Involution melancholia .....	5	4	9	2	1	3	3	2	5	0	1	1	1	—	—	—	—	—	—	—	—
15. Dementia praecox .....	26	30	56	25	19	44	3	9	10	0	0	2	—	—	—	—	—	—	—	—	—
16. Paranoia or paranoid conditions .....	5	11	16	2	3	5	1	2	4	0	0	4	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses .....	1	0	1	1	0	1	2	0	2	0	0	1	0	1	1	—	—	—	—	—	—
18. Psychoneuroses and neurasthenia .....	4	2	6	4	0	4	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality .....	4	0	4	4	0	4	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency .....	3	6	9	3	5	8	0	2	3	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses .....	3	5	8	0	3	3	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis .....	2	1	3	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total .....	223	204	427	93	65	158	85	65	150	36	67	103	1	5	6	7	1	8	1	1	2

TABLE 14. *Psychoses of Readmissions for the Year Ending September 30, 1924.*

PSYCHOSES	Males	Females	Total
1. Traumatic psychoses . . . . .	1	0	1
2. Senile psychoses . . . . .	1	1	2
3. Psychoses with cerebral arteriosclerosis . . . . .	1	3	4
4. General paralysis . . . . .	9	0	9
5. Psychoses with cerebral syphilis . . . . .	0	0	0
6. Psychoses with Huntington's chorea . . . . .	0	1	1
7. Psychoses with brain tumor . . . . .	0	0	0
8. Psychoses with other brain or nervous diseases . . . . .	0	1	1
9. Alcoholic psychoses . . . . .	7	4	11
10. Psychoses due to drugs and other exogenous toxins . . . . .	0	0	0
11. Psychoses with pellagra . . . . .	0	0	0
12. Psychoses with other somatic diseases . . . . .	0	2	2
13. Manic-depressive psychoses . . . . .	10	16	26
14. Involution melancholia . . . . .	0	0	0
15. Dementia praecox . . . . .	15	12	27
16. Paranoia and paranoid conditions . . . . .	3	5	8
17. Epileptic psychoses . . . . .	1	0	1
18. Psychoneuroses and neuroses . . . . .	0	1	1
19. Psychoses with psychopathic personality . . . . .	1	4	5
20. Psychoses with mental deficiency . . . . .	4	0	4
21. Undiagnosed psychoses . . . . .	0	0	0
22. Without psychosis . . . . .	2	3	5
Total . . . . .	55	53	108

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge for the Year Ending September 30, 1924.*

PSYCHOSES	Total			Re-covered			Im-proved			Unim-proved			Without Psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile	4	8	12	-	-	-	4	5	9	0	3	3	-	-	-
3. With cerebral arteriosclerosis	8	6	14	1	0	1	7	3	10	0	3	3	-	-	-
4. General paralysis	7	0	7	-	-	-	3	0	3	4	0	4	-	-	-
5. With cerebral syphilis	4	3	7	-	-	-	3	2	5	1	1	2	-	-	-
6. With Huntington's chorea	1	0	1	-	-	-	1	0	1	-	-	-	-	-	-
7. With brain tumor	0	1	1	-	-	-	0	1	1	-	-	-	-	-	-
8. With other brain or nervous diseases	0	2	2	-	-	-	-	-	-	0	2	2	-	-	-
9. Alcoholic	19	6	25	11	0	11	7	5	12	1	1	2	-	-	-
10. Due to drugs and other exogenous toxins	1	4	5	1	2	3	0	2	2	-	-	-	-	-	-
11. With pellagra	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases	1	9	10	1	3	4	0	5	5	0	1	1	-	-	-
13. Manic-depressive	17	43	60	10	18	28	7	21	28	0	4	4	-	-	-
14. Involution melancholia	0	4	4	0	1	1	0	2	2	0	1	1	-	-	-
15. Dementia praecox	23	18	41	-	-	-	21	14	35	2	4	6	-	-	-
16. Paranoia or paranoid conditions	5	13	18	-	-	-	3	9	12	2	4	6	-	-	-
17. Epileptic psychoses	2	0	2	-	-	-	1	0	1	1	0	1	-	-	-
18. Psychoneuroses and neuroses	2	3	5	0	2	2	2	1	3	-	-	-	-	-	-
19. With psychopathic personality	2	4	6	2	1	3	0	3	3	-	-	-	-	-	-
20. With mental deficiency	7	6	13	4	0	4	3	5	8	0	1	1	-	-	-
21. Undiagnosed psychoses	0	3	3	-	-	-	0	3	3	-	-	-	-	-	-
22. Without psychosis	4	6	10	-	-	-	-	-	-	-	-	-	4	6	10
TOTAL	107	139	246	30	27	57	62	81	143	11	25	36	4	6	10

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924.

CAUSES OF DEATH	Total			Senile			With cerebral arteriosclerosis			General paralysis			Alcoholic			Manic-depressive			Involution melancholia		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>General Diseases</i>																					
Erysipelas.....	0	2	2	0	1	1	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Septicaemia.....	1	0	1	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pellagra.....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis of lungs.....	7	16	23	1	1	2	0	2	2	-	-	-	2	0	2	0	2	2	0	2	2
Other forms of tuberculosis.....	1	1	2	0	1	1	1	0	1	-	-	-	0	1	1	-	0	2	0	2	2
Cancer.....	0	8	8	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diabetes.....	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nervous System</i>																					
Apoplexy (cerebral hemorrhage).....	6	4	10	0	1	1	3	0	3	-	-	-	1	0	1	0	1	1	0	1	1
General paralysis of insane.....	18	5	23	-	-	-	-	-	-	18	5	23	-	-	-	0	1	1	-	-	-
Exhaustion from other mental diseases.....	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brain tumor.....	1	0	1	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-
Other diseases of brain (Acute edema).....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Circulatory System</i>																					
Pericarditis.....	0	1	1	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endocarditis and myocarditis.....	27	12	39	4	3	7	13	3	16	1	0	1	1	0	1	2	1	3	-	-	-
Other diseases of the heart.....	1	1	2	2	1	0	1	2	1	-	-	-	-	-	-	-	-	-	-	-	-
Arteriosclerosis.....	9	25	34	0	8	8	8	16	24	-	-	-	-	-	-	0	1	1	1	0	1
Other diseases of circulatory system.....	0	2	2	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Respiratory System</i>																					
Bronchopneumonia.....	32	20	52	5	9	14	10	10	20	12	0	12	1	0	1	0	1	1	1	0	1
Lobar pneumonia.....	1	4	5	0	1	1	1	1	2	-	-	-	0	1	1	0	1	1	-	-	-
Pleurisy.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gangrene of lungs.....	2	0	2	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-	1	0	1
<i>Digestive System</i>																					
Diarrhea and enteritis.....	0	13	13	0	7	7	0	5	5	-	-	-	-	-	-	-	-	-	-	-	-
Hernia and intestinal obstruction.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of digestive system (cancer and tuberculosis excepted).....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Genito-Urinary System</i>																					
Chronic nephritis.....	2	2	4	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of kidneys and sanasx.....	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Skin</i>																					
Gangrene.....	0	1	1	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL.....</b>	<b>111</b>	<b>125</b>	<b>236</b>	<b>13</b>	<b>37</b>	<b>50</b>	<b>36</b>	<b>39</b>	<b>75</b>	<b>31</b>	<b>5</b>	<b>36</b>	<b>8</b>	<b>2</b>	<b>10</b>	<b>2</b>	<b>8</b>	<b>10</b>	<b>3</b>	<b>5</b>	<b>8</b>

\*Includes group 22 "without psychosis."

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924—Concluded.

CAUSES OF DEATH	Dementia praecox			Paranoia or paranoid conditions			Epileptic psychoses			Psycho-neuroses and neuroses			With psychopathic personality			With mental deficiency			*All other psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>General Diseases</i>																					
Erysipelas.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Septicaemia.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pellagra.....	1	7	8	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1	0	1	1
Tuberculosis of lungs.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1	1	4	4
Other forms of tuberculosis.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cancer.....	0	1	1	0	3	3	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
Diabetes.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
<i>Nervous System</i>																					
Apoplexy (cerebral hemorrhage).....	0	1	1	-	-	-	1	0	1	-	-	-	-	-	-	1	0	1	-	-	-
General paralysis of insane.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exhaustion from other mental diseases.....	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-	1	0	1
Brain tumor.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of brain (Acute edema).....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Circulatory System</i>																					
Pericarditis.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endocarditis and myocarditis.....	3	1	4	0	2	2	2	0	2	-	-	-	-	-	-	-	-	-	1	2	3
Other diseases of the heart.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arteriosclerosis.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of circulatory system.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Respiratory System</i>																					
Bronchopneumonia.....	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1
Lobar pneumonia.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pleurisy.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gangrene of lungs.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Digestive System</i>																					
Diarrhea and enteritis.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hernia and intestinal obstruction.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of digestive system (cancer and tuberculosis excepted).....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Genito-Urinary System</i>																					
Chronic nephritis.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of kidneys and annexa.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1
<i>Diseases of the Skin</i>																					
Gangrene.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL.....	6	17	23	0	5	5	4	0	4	0	0	0	0	0	0	2	0	2	6	7	13

\*Includes group 22 "without psychosis."

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1924.

Psychoses	Total			Under 15 years			15-19 years			20-24 years			25-29 years			30-34 years			35-39 years			40-44 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic .....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile .....	13	37	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis .....	13	39	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis .....	36	39	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis .....	31	5	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor .....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases .....	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic .....	8	2	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra .....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases .....	2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive .....	2	8	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14. Involution melancholia .....	3	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox .....	6	17	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia or paranoid conditions .....	0	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses .....	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency .....	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL .....	111	125	236	0	0	0	0	0	0	3	1	4	4	3	7	4	4	8	7	5	12	7	3	10

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses,  
for the Year Ending September 30, 1924—Concluded.

Psychoses	45—49 years			50—54 years			55—59 years			60—64 years			65—69 years			70 years and over			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile .....	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis .....	9	2	11	2	0	2	4	3	7	1	2	3	3	8	14	9	32	41	—	—	—
4. General paralysis .....	—	—	—	—	—	—	2	0	2	2	0	2	0	1	2	17	24	41	—	—	—
5. With cerebral syphilis .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases .....	—	—	—	—	—	—	1	0	1	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic .....	1	0	1	2	0	2	1	0	1	3	1	4	—	—	—	0	1	1	—	—	—
10. Due to drugs and other exogenous toxins .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra .....	0	1	1	1	0	1	—	—	—	0	1	1	0	1	1	—	—	—	—	—	—
12. With other somatic diseases .....	—	—	—	1	2	3	0	1	1	—	0	1	0	2	2	0	1	1	—	—	—
13. Manic-depressive .....	—	—	—	2	2	4	0	1	1	1	0	1	0	2	1	0	4	4	—	—	—
14. Involution melancholia .....	0	2	2	2	2	4	0	1	1	1	1	2	0	1	1	0	2	2	—	—	—
15. Dementia praecox .....	0	1	1	1	0	1	—	—	—	1	0	1	0	1	1	0	2	2	—	—	—
16. Paranoia or paranoid conditions .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency .....	—	—	—	—	—	—	—	—	—	—	—	—	—	1	0	1	—	—	—	—	—
21. Undiagnosed psychoses .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL .....	11	7	18	15	6	21	8	5	13	14	9	23	11	17	28	27	65	92	0	0	0

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses, for the Year Ending September 30, 1924.*

PSYCHOSES	Total			Less than 1 month			1-3 months			4-7 months			8-12 months			1-2 years			3-4 years			5-10 years			10-15 years			15-20 years			20 y s. and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.			
1. Traumatic .....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2. Senile .....	13	37	50	1	2	3	2	5	7	3	2	5	0	5	4	16	20	36	2	2	4	4	1	2	3	0	1	1	0	1	1		
3. With cerebral arteriosclerosis .....	36	39	75	7	7	14	10	10	20	5	5	10	4	2	6	11	19	30	2	2	4	0	1	1	1	0	1	1	0	1	1		
4. General paralysis .....	31	5	36	4	0	4	7	1	8	5	0	5	2	0	2	9	4	13	3	0	3	1	0	1	1	1	1	1	1	1	1		
5. With cerebral syphilis .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
6. With Huntington's chorea .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7. With brain tumor .....	1	0	1	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
8. With other brain or nervous diseases .....	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
9. Alcoholic .....	8	2	10	2	0	2	2	0	2	2	0	2	-	-	-	2	1	3	-	1	0	1	0	1	1	1	1	1	1	1	1	1	
10. Due to drugs and other exogenous toxings .....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11. With pellagra .....	0	1	1	-	-	-	-	-	-	0	1	1	1	0	1	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12. With other somatic diseases .....	2	6	8	0	2	2	1	3	4	-	-	-	1	0	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
13. Manic-depressive .....	2	8	10	1	1	2	0	1	1	1	0	3	1	1	2	3	1	1	1	1	2	0	2	2	0	1	1	1	1	1	2	3	
14. Involution melancholia .....	3	5	8	-	-	-	-	-	-	1	0	1	0	1	1	1	0	-	-	-	3	4	4	8	12	-	-	-	-	-	-	-	
15. Dementia praecox .....	6	17	23	-	-	-	0	1	1	-	-	-	0	1	1	0	2	2	0	1	1	1	1	1	1	1	1	1	1	2	3	3	
16. Paranoia or paranoid conditions .....	5	5	5	-	-	-	-	-	-	-	-	-	0	2	2	0	2	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	
17. Epileptic psychoses .....	4	0	4	-	-	-	1	0	1	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18. Psychoneuroses and neuroses .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19. With psychopathic personality .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20. With mental deficiency .....	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-	-	-	1	0	1	
21. Undiagnosed psychoses .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22. Without psychosis .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL .....	111	125	236	15	12	27	24	21	45	16	8	24	7	11	18	29	39	68	11	9	20	6	15	21	0	2	2	0	5	3	3	6	

TABLE 19. *Family Care Department, Year Ending September 30, 1924.*

	M.	F.	T.
Remaining in Family Care September 30, 1923 .....	1	9	10
Admitted within the year .....	0	5	5
Nominally admitted from visit during the year .....	0	0	0
Whole number of cases within the year .....	1	14	15
Dismissed within the year .....	0	3	3
Returned to institution .....	0	0	0
Discharged .....	0	3	3
On visit .....	0	0	0
Remaining September 30, 1924 .....	1	11	12
Supported by the State .....	0	7	7
Private .....	1	2	3
Self-supporting .....	0	2	2
Number of different persons within the year .....	1	14	15
Number of different persons admitted .....	0	5	5
Number of different persons discharged .....	0	3	3
Average daily number in Family Care .....	1.00	10.65	11.65
State .....	0.00	6.41	6.41
Reimbursing .....	0.00	0.00	0.00
Self-supporting .....	0.00	1.44	1.44
Private .....	1.00	2.80	3.80







MASS.  
DOCS.  
COLL.

*The Commonwealth of Massachusetts*

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1925

---

THE EIGHTY-FIFTH ANNUAL REPORT OF THE HOSPITAL

FOUNDED IN 1839 BY THE CITY OF BOSTON



RECEIVED  
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# BOSTON STATE HOSPITAL.

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MRS. KATHERINE G. DEVINE, *Secretary*, Milton.  
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WILLIAM E. PREBLE, M.D., *Internist*.  
ALBERT EVANS, M.D., *Internist*.  
FRED B. LUND, M.D., *Surgeon*.  
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RALPH W. HATCH, M.D., *Ophthalmologist*.  
EDWIN A. MESERVE, M.D., *Laryngologist, Rhinologist and Otologist*.  
GRACE E. ROCHFORD, M.D., *Obstetrician*.

## OFFICERS OF THE HOSPITAL

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E. C. NOBLE, M.D., *Assistant Superintendent*.  
MARY E. GILL NOBLE, M.D., *Senior Assistant Physician*.  
EDMUND M. PEASE, M.D., *Senior Assistant Physician*.  
GENEVA TRYON, M.D., *Senior Assistant Physician*.  
GEORGE H. MAXFIELD, M.D., *Senior Assistant Physician*.  
HERBERT E. HERRIN, M.D., *Senior Assistant Physician*.  
ROY D. HALLORAN, M.D., *Senior Assistant Physician*.  
FRANKLIN I. FLAGG, M.D., *Assistant Physician*.  
GEORGE C. KELLY, M.D., *Assistant Physician*.  
ALEXANDER MARCOTTE, M.D., *Assistant Physician*.  
ANNA C. WELLINGTON, M.D., *Assistant Physician*.  
ALBERTA S. B. GUIBORD, M.D., *Assistant Physician (School Clinic)*.  
—— —, *Pathologist*.  
MARTIN P. ROSE, D.D.S., *Dentist*.  
ARTHUR E. GILMAN, *Steward*.  
ADELINE J. LEARY, *Treasurer*.

## The Commonwealth of Massachusetts.

### TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council :*

The trustees of the Boston State Hospital have the honor to submit herewith their seventeenth annual report. During the year the trustees have held their twelve stated meetings and by their committees have inspected the hospital each month. They have only praise for the administration of the hospital and for the care given to the welfare of the patients. The work of the institution, which is described in detail in the accompanying report of the superintendent, has been conducted as efficiently as has seemed possible consistent with the defects of the plant and the limitations of the appropriation made by the General Court.

#### PERSONS UNDER THE CARE OF THE TRUSTEES.

At the beginning of the year there were 2,087 patients in the hospital, 11 in private care, and 344 on visit or escape, a total of 2,442 persons. At the close of the year the total number was 2,380, of whom 2,112 were in the hospital, 9 were in private care, and 259 on visit or escape.

## COST OF MAINTENANCE.

The amount estimated a year ago as needed for the maintenance of the hospital, in accordance with the rules of the Department of Mental Diseases and the Department of Administration and Finance, was \$833,418.21. Of this sum \$779,458.86 was allowed by the General Court, the principal reduction being in the amount allowed for personal service. By the use of strict economy and by leaving vacant a number of the positions in the medical, attendant and nursing staffs, the expenditures have been kept within the appropriation. The average per capita weekly cost is estimated for the fiscal year to be \$6.74. In 1913 the per capita cost, exclusive of the Psychopathic Department, which has since been established as a separate institution, was \$4.75. The average index of prices for the past year may be taken as 158, so that the per capita cost for 1913, in terms of the purchasing value of the dollar the present year, would be \$7.51. While, because of the larger appropriations, it would seem that the cost of the maintenance of the hospitals had greatly increased when measured in the purchasing power of money, it is evident that this institution, at least, is being much less expensively conducted.

## ESTIMATES FOR MAINTENANCE.

The following are the estimates for the amount needed for maintenance for the coming year, based, as usual, on the established salary scales and the per capita allowances, the number of patients being taken as 2,200:

Personal services.....	\$417,709.00
Religious instruction.....	2,080.00
Travel and transportation.....	7,930.00
Food.....	244,046.38
Clothing and materials.....	37,531.50
Furnishings and supplies.....	69,488.68
Medical and general care.....	30,059.37
Heat, light and power.....	47,638.30
Farm.....	10,550.77
Garage, stable and grounds.....	9,705.73
Repairs ordinary.....	18,933.49
Repairs and renewals.....	35,743.95
Total.....	<u>\$931,417.17</u>

## NEW CONSTRUCTION.

No appropriation for new construction was made by the General Court this year, nor, with the exception of \$15,000 for a superintendent's house in 1923, has any appropriation for a new building been made since 1919, though the number of patients is now about 215 above the officially estimated capacity of the hospital. Even more pressing, however, are more adequate accommodations for the staff, the attendants, and the farm workers. Maintenance is an important part of the compensation of these men, and when the living accommodations are unsatisfactory it becomes more difficult to obtain and to retain the services of desirable appointees. The trustees have many times urged the construction of a new cottage for farm employees in place of the old farm house, which is unsafe for occupancy. The most important need is a new building which will provide, at a convenient location, for the administration offices and quarters for the staff officers. The present wooden structure could then be removed to a safer location and be used for housing the attendants. This would reduce the fire hazard referred to below and materially aid the hospital in carrying on its business operations. The trustees have recommended the following items of special appropriations for the ensuing year, all of which have been urged for several years:

Administration building.....	\$180,000.00
Extension to sewer, water and steam lines.....	13,000.00
Addition to garage.....	4,200.00
Purchase of additional land.....	50,000.00
Concrete pavement in front of power house.....	10,000.00

Concrete platform for coal storage.....	\$6,000.00
Cottage for farm employees.....	30,000.00
Total.....	\$293,200.00

### FIRE HAZARD.

Two fires in the course of the last fifteen months have emphasized the need of better protection. The Fire Commissioner of the city of Boston has made a careful examination of the premises and has recommended many radical changes. In view of this the trustees, at their January meeting, adopted the following resolution, which was transmitted to His Excellency the Governor:

"That attention be again called to the necessity of

1. Removing the old wooden Administration building in the East group, constituting as it does a distinct fire menace as a result of the existence of wooden stairways running from the basement to the attic, the presence of exposed electric wires and wires in wooden conduits in various parts of the building, and the necessity of housing a considerable number of persons in the attic, — a place where their lives would certainly be placed in jeopardy by a serious fire;

2. Providing for the removal of the old barn located a few hundred yards from the Administration building above referred to, and containing a large amount of hay;

3. Removing the other wooden buildings and sheds in this same neighborhood;

4. Installing sprinklers and such other fire protection as may be needed to insure the safety of the six hundred and more patients in the old non-fire-proof stucco buildings until such time as these buildings can be replaced by fireproof structures;

5. Removing the old wooden farm building located in the West group and housing in the neighborhood of twenty employees, the Building Inspector of the Department of Public Safety having refused to certify this structure for occupancy;

6. The prompt adoption of such other measures for fire protection as may be deemed necessary by the proper authorities."

HENRY LEFAVOUR,  
KATHERINE G. DEVINE,  
WILLIAM F. WHITTEMORE,  
CHARLES B. FROTHINGHAM,

EDNA W. DREYFUS,  
DAVID M. WATCHMAKER,  
J. WALDO POND,

NOVEMBER 30, 1925.

*Trustees.*

## SUPERINTENDENT'S REPORT

*To the Board of Trustees of the Boston State Hospital.*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1925, and the fiscal year ending November 30, 1925. Founded by the city of Boston in 1839, this marks the completion of the eighty-sixth year of the institution as a hospital for mental diseases, and the seventeenth year of its history as a State hospital.

### MOVEMENT OF POPULATION.

The census of the hospital on September 30, 1924, was as follows: in the wards, men, 860, women, 1,218, total, 2,078; at home on visit, men, 155, women, 190, total, 345; boarding out, man, 1, women, 11, total, 12; and out on escape, men, 6, women, 2, total, 8; making a total of 2,443, 1,022 men and 1,421 women, in the custody of the hospital.

Two hundred and seventy-three men and 360 women, a total of 633, were received during the year. This included the following: first admissions as insane,<sup>1</sup> men, 189, women, 239, total, 428; readmissions as insane,<sup>2</sup> men, 29, women, 55, total,

<sup>1</sup> Including 1 woman committed from temporary care of the preceding year.

<sup>2</sup> Including 1 man committed from temporary care of the preceding year.

84; first admissions, temporary care,<sup>1</sup> men, 16, women, 31, total, 47; readmissions, temporary care, men, 23, women, 17, total, 40; and transferred from other institutions, men, 16, women, 18, total, 34. Three hundred and twenty-nine cases, including 147 men and 182 women, were discharged during the year. Seven men and 9 women, a total of 16, were transferred to other institutions. One hundred and nineteen men and 146 women, a total of 265, died during the year.

The census on September 30, 1925, was as follows: in the wards, men, 912, women, 1,255, total, 2,167; at home on visit, men, 96, women, 177, total, 273; boarding out, men, 0, women, 10; and out on escape, men, 13, women, 1, total, 14; making a total of 2,464, 1,021 men and 1,443 women, in the custody of the hospital.

The total number of cases treated during the year was 3,076, 1,295 men and 1,781 women.

The average daily number of patients for the statistical year was: men, 1,021.16, women, 1,436.37, total, 2,457.53. The average daily number in the wards was: men, 884.07, women, 1,237.32, total, 2,121.39, or 86.32 per cent of the whole number. The average daily number at home on visit was: men, 128.27, women, 188.03, total, 316.30, or 12.88 per cent. The average daily number boarding out was: men, .97, women, 10.12, total, 11.09, or .45 per cent. The average daily number out on escape was: men, 7.85, women, .90, total, 8.75, or .35 per cent. The average daily number of committed cases was: men, 880.70, women, 1,232.99, total, 2,113.69, or 99.64 per cent of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was: men, .022, women, .019, total, .041, or .0019 per cent. The average daily number of temporary care cases was: men, 3.37, women, 4.33, total, 7.70, or .36 per cent. The average daily number of cases under complaint or indictment was: men, 4.52, women, 3.00, total, 7.52, or .35 per cent. The average daily number of epileptics was: men, 9.00, women, 12.76, total, 21.76, or 1.03 per cent. The private cases are included with the reimbursing cases. The average daily number of reimbursing cases was: men, 47.45, women, 118.50, total, 165.95, or 7.82 per cent. The average daily number of cases supported by the State was: men, 836.62, women, 1,118.82, total, 1,955.44, or 92.18 per cent. There was a daily average of 38.66 ex-service men.

The recovery rate, based on the number of first admissions, was 20.21 per cent; based on the total number cared for during the year, 3.12 per cent; based on the average daily number in the wards, 4.52 per cent; and based on the total admissions for the year, 15.17 per cent.

The death rate, based on the total number cared for during the year, was 8.64 per cent; and based on the average daily number in the wards, 12.49 per cent. The death rate of the hospital is unusually large when compared with that of other institutions of a similar character, as over thirty-five per cent of the population is of the infirm type, and nearly ten per cent represents actual bed cases. This is due to the fact that the acutely ill, the senile and the infirm cases from the city cannot be readily transported to distant institutions, and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate.

Of the first admissions as insane, 222, or 51.87 per cent, were foreign born, and 362, or 84.58 per cent, were of foreign parentage on one or both sides. Eighty, or 18.70 per cent, were aliens.

The average age on admission was 52.77; 174, or 40.65 per cent, were sixty years of age or over, and 93, or 21.73 per cent, were seventy years of age or over.

The first admissions for the year, classified according to legal status, were as follows:

	Males	Females
Committed cases (section 51, chapter 123, General Laws)...	131	177
Voluntary admissions (section 86, chapter 123, General Laws).....	0	0
Emergency commitments (section 78, chapter 123, General Laws).....	2	1

<sup>1</sup> Temporary care now includes all cases admitted under the provisions of Section 100, Chapter 123, General Laws.

Pending examination and hearing (section 55, chapter 123, General Laws) . . . . .	0	0
Temporary care cases (section 79, chapter 123, General Laws) . . . . .	41	51
Observation cases (section 77, chapter 123, General Laws) . . . . .	15	10
Total . . . . .	189	239

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (section 51, chapter 123, General Laws), 71.96 per cent; emergency cases (section 78, chapter 123, General Laws), .70 per cent; temporary care cases (section 79, chapter 123, General Laws), 21.50 per cent; and observation cases (section 77, chapter 123, General Laws), 5.84 per cent. No voluntary cases (section 86, chapter 123, General Laws), and no cases pending examination and hearing (section 55, chapter 123, General Laws), were admitted during the year.

The first admissions for the year included 308 committed cases. Of these, 11, or 3.57 per cent, were discharged; 14, or 4.54 per cent, were transferred to other institutions for mental diseases; 97, or 31.50 per cent, died; and 186, or 60.39 per cent, remained at the end of the statistical year.

Of the first admissions, 3 were emergency cases, two of which were committed within a few days after admission, and one changed to temporary care status (section 79, chapter 123, General Laws). None remained at the end of the statistical year.

Ninety-two of the first admissions were temporary care cases. Of these, 87, or 94.57 per cent, were committed; 1, or 1.08 per cent, changed to emergency status (section 78, chapter 123, General Laws); and 4, or 4.35 per cent, to observation status (section 77, chapter 123, General Laws).

The first admissions also included 25 cases admitted for observation under the provisions of section 77, chapter 123, General Laws, all of which were subsequently committed.

Of the 428 first admissions, the cause was unascertained or no cause given in 127 cases, or 29.68 per cent. In the 301 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 38, or 12.62 per cent; arteriosclerosis, 96, or 31.89 per cent; syphilis, 32, or 10.63 per cent; alcoholism, 36, or 11.96 per cent; involutional changes, 35, or 8.30 per cent; and traumatism, 5, or 1.66 per cent. There was a family history of mental diseases in 63, or 14.72 per cent, mental defects in 8, or 1.87 per cent, and nervous diseases in 9, or 2.10 per cent, of the first admissions.

The forms of mental disease shown by the first admissions, briefly summarized, were as follows: senile psychoses, 81, or 18.92 per cent; psychoses with cerebral arteriosclerosis, 90, or 21.03 per cent; general paralysis, 27, or 6.31 per cent; psychoses with other brain or nervous diseases, 17, or 3.97 per cent; alcoholic psychoses, 23, or 5.37 per cent; psychoses with other somatic diseases, 7, or 1.63 per cent; manic-depressive psychoses, 64, or 14.95 per cent; involution melancholia, 8, or 1.87 per cent; dementia praecox, 38, or 8.88 per cent; paranoia or paranoid conditions, 19, or 4.41 per cent; psychoses with mental deficiency, 15, or 3.50 per cent; psychoses with psychopathic personality, 5, or 1.17 per cent; undiagnosed psychoses, 17, or 3.97 per cent; and all other psychoses one per cent or less. Five, or 1.17 per cent, were without psychosis. The psychoses of all first admissions are shown in Table No. 6, on page 32.

The forms of mental disease shown by the readmissions, briefly summarized, were as follows: traumatic psychosis, 1, or 1.19 per cent; senile psychoses, 4, or 4.76 per cent; psychoses with cerebral arteriosclerosis, 2, or 2.38 per cent; general paralysis, 3, or 3.57 per cent; psychoses with cerebral syphilis, 2, or 2.38 per cent; alcoholic psychoses, 5, or 5.95 per cent; manic-depressive psychoses, 30, or 35.72 per cent; involution melancholia, 1, or 1.19 per cent; dementia praecox, 23, or 27.39 per cent; paranoia or paranoid conditions, 5, or 5.95 per cent; epileptic psychosis, 1, or 1.19 per cent; psychoses with psychopathic personality, 2, or 2.38 per cent; psychoses with mental deficiency, 3, or 3.57 per cent; and undiagnosed psychoses, 2, or 2.38 per cent.



Of these readmissions, 46, or 54.76 per cent, were committed under the provisions of section 51, chapter 123, General Laws; 30, or 35.72 per cent, were temporary care cases (section 79, chapter 123, General Laws); 7, or 8.33 per cent, were observation cases (section 77, chapter 123, General Laws); and 1, or 1.19 per cent, an emergency case (section 78, chapter 123, General Laws). No voluntary cases (section 86, chapter 123, General Laws) and no cases held under complaint or indictment (section 100, chapter 123, General Laws) or pending examination and hearing (section 55, chapter 123, General Laws) were included in the readmissions for the year.

The following tables show the psychoses of all first admissions classified according to legal status:

*Psychoses of Committed Cases (Section 51, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL		
				M.	F.	T.
Traumatic psychoses . . . . .				3	0	3
Senile psychoses . . . . .				8	45	53
Simple deterioration . . . . .	5	21	26			
Depressed and agitated states . . . . .	2	12	14			
Paranoid types . . . . .	1	11	12			
Others . . . . .	0	1	1			
Psychoses with cerebral arteriosclerosis . . . . .				28	29	57
General paralysis . . . . .				17	5	22
Psychoses with cerebral syphilis . . . . .				1	1	2
Psychosis with brain tumor . . . . .				0	1	1
Psychoses with other brain or nervous diseases . . . . .				8	3	11
Cerebral embolism . . . . .	1	0	1			
Paralysis agitans . . . . .	1	1	2			
Meningitis, tubercular or other forms . . . . .	1	0	1			
Acute chorea . . . . .	0	1	1			
Tabes dorsalis . . . . .	1	0	1			
Type undetermined . . . . .	4	1	5			
Alcoholic psychoses . . . . .				14	4	18
Delirium tremens . . . . .	0	0	0			
Korsakow's psychosis . . . . .	1	1	2			
Acute hallucinosis . . . . .	4	1	5			
Other types, acute or chronic . . . . .	9	2	11			
Psychoses with other somatic diseases . . . . .				2	1	3
Cardio-renal diseases . . . . .	1	1	2			
Others . . . . .	1	0	1			
Manic-depressive psychoses . . . . .				16	34	50
Manic type . . . . .	4	6	10			
Depressive type . . . . .	8	22	30			
Other types . . . . .	4	8	12			
Involution melancholia . . . . .				2	4	6
Dementia praecox . . . . .				15	16	31
Paranoid type . . . . .	6	7	13			
Catatonic type . . . . .	1	2	3			
Hebephrenic type . . . . .	5	4	9			
Type undetermined . . . . .	3	3	6			
Paranoia or paranoid conditions . . . . .				2	12	14
Epileptic psychosis . . . . .				1	0	1
Psychoneuroses and neuroses . . . . .				0	1	1
Hysterical type . . . . .	0	1	1			
Psychoses with psychopathic personality . . . . .				1	2	3
Psychoses with mental deficiency . . . . .				6	8	14
Undiagnosed psychoses . . . . .				3	11	14
Without psychosis . . . . .				4	0	4
Psychopathic personality without psychosis . . . . .	2	0	2			
Mental deficiency without psychosis . . . . .	2	0	2			
TOTAL . . . . .				131	177	308

*Psychoses of Emergency Commitments (Section 78, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL		
				M.	F.	T.
Psychosis with other brain or nervous diseases . . . . .				1	0	1
Cerebral embolism . . . . .	1	0	1			
Manic-depressive psychosis . . . . .				1	0	1
Depressive type . . . . .	1	0	1			
Paranoia or paranoid conditions . . . . .				0	1	1
TOTAL . . . . .				2	1	3

*Psychoses of Temporary Care Cases (Section 79, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL		
				M.	F.	T.
Traumatic psychosis.....				1	0	1
Senile psychoses.....				10	17	27
Simple deterioration.....	6	9	15			
Depressed and agitated states.....	3	5	8			
Delirious and confused types.....	1	0	1			
Paranoid type.....	0	3	3			
Psychoses with cerebral arteriosclerosis.....				15	15	30
General paralysis.....				2	1	3
Psychosis with cerebral syphilis.....				0	1	1
Psychoses with other brain or nervous diseases.....				4	0	4
Paralysis agitans.....	1	0	1			
Tabes dorsalis.....	1	0	1			
Others.....	2	0	2			
Alcoholic psychoses.....				2	0	2
Korsakow's psychosis.....	1	0	1			
Chronic alcoholic hallucinosis.....	1	0	1			
Psychoses with other somatic diseases.....				2	2	4
Cardio-renal disease.....	2	1	3			
Diseases of the ductless glands.....	0	1	1			
Manic-depressive psychoses.....				2	6	8
Manic type.....	1	1	2			
Depressive type.....	1	2	3			
Other types.....	0	3	3			
Involution melancholia.....				0	2	2
Dementia praecox.....				2	1	3
Paranoid type.....	1	0	1			
Hebephrenic type.....	1	0	1			
Undetermined.....	0	1	1			
Paranoia or paranoid conditions.....				0	3	3
Undiagnosed psychoses.....				1	2	3
Without psychosis.....				0	1	1
Psychopathic personality without psychosis.....	0	1	1			
<b>TOTAL.....</b>				<b>41</b>	<b>51</b>	<b>92</b>

*Psychoses of Observation Cases (Section 77, Chapter 123, General Laws).*

	M.	F.	T.	TOTAL		
				M.	F.	T.
Senile psychosis.....				0	1	1
Depressed and agitated type.....	0	1	1			
Psychoses with cerebral arteriosclerosis.....				2	1	3
General paralysis.....				2	0	2
Psychosis with other brain or nervous disease.....				1	0	1
Encephalitis lethargica.....	1	0	1			
Alcoholic psychoses.....				3	0	3
Korsakow's psychosis.....	1	0	1			
Chronic paranoid form.....	1	0	1			
Alcoholic deterioration.....	1	0	1			
Manic-depressive psychoses.....				3	2	5
Manic type.....	1	0	1			
Depressive type.....	2	2	4			
Dementia praecox.....				1	3	4
Paranoid type.....	0	1	1			
Catatonic type.....	0	1	1			
Undetermined.....	1	1	2			
Paranoia or paranoid conditions.....				0	1	1
Psychoneuroses and neuroses.....				1	1	2
Neurasthenic type.....	1	1	2			
Psychoses with psychopathic personality.....				1	1	2
Psychosis with mental deficiency.....				1	0	1
<b>TOTAL.....</b>				<b>15</b>	<b>10</b>	<b>25</b>

One hundred and seventy-eight temporary care cases (section 79, chapter 123, General Laws) were admitted during the year ending September 30, 1925. Of these, 122, or 68.54 per cent, were committed under the provisions of section 51, chapter 123, General Laws; 7, or 3.93 per cent, changed to observation status; none to voluntary; 1, or .56 per cent, to emergency status; 42, or 23.60 per cent, were discharged; 3, or 1.68 per cent, died; and 3, or 1.68 per cent, remained at the end of the statistical year. Of the 42 discharges, 3, or 7.14 per cent, were discharged as recovered; 5, or 11.90 per cent, as improved; 28, or 66.67 per cent, as unimproved; and 6, or 14.29 per cent, as without psychosis.

Four emergency cases (section 78, chapter 123, General Laws) were admitted during the year. Three of these were committed in accordance with the provisions of section 51, chapter 123, General Laws, and one remained in the hospital at the

end of the statistical year. In addition to this, one case shown in the admissions for the year as a temporary care case was committed under the provisions of section 78 and later discharged, condition unimproved.

Fifty-three observation cases (section 77, chapter 123, General Laws) were admitted during the year. Of these, 32, or 60.38 per cent, were subsequently committed under the provisions of section 51, chapter 123, General Laws, 17, or 32.08 per cent, discharged, one, or 1.89 per cent, died, none were transferred, and 3, or 5.65 per cent, remained at the end of the statistical year. Of the 17 discharges, 5, or 29.41 per cent, were discharged as recovered; 5, or 29.41 per cent, as improved; none as unimproved; and 7, or 41.18 per cent, as without psychosis. To the above should be added 7 cases shown in the admissions under section 79, 3 of which were discharged (one as recovered, one as improved, and one without psychosis), 2 died, and 2 remained in the institution at the end of the statistical year.

Eight cases held under complaint or indictment (section 100, chapter 123, General Laws) were admitted during the year. Of these, one was discharged as recovered from psychosis with psychopathic personality and returned to Court, two were out on escape and five remained in the hospital at the end of the statistical year.

One case pending examination and hearing (section 55, chapter 123, General Laws), was admitted during the year. This was later discharged to the Department of Mental Diseases, condition unimproved.

No voluntary cases (section 86, chapter 123, General Laws) were admitted during the year.

The following table shows the psychoses of all cases admitted as temporary care, all forms, and subsequently committed under the provisions of section 51, chapter 123, General Laws:

	M.	F.	T.	TOTAL		
				M.	F.	T.
Traumatic psychoses.....				1	1	2
Senile psychoses.....				11	20	31
Simple deterioration.....	6	9	15			
Depressed and agitated.....	3	7	10			
Delirious and confused.....	1	0	1			
Paranoid type.....	1	4	5			
Psychoses with cerebral arteriosclerosis.....				17	16	33
General paralysis.....				4	3	7
Psychoses with cerebral syphilis.....				1	1	2
Psychoses with other brain or nervous diseases.....				6	0	6
Paralysis agitans.....	1	0	1			
Cerebral embolism.....	1	0	1			
Tabes dorsalis.....	1	0	1			
Others.....	3	0	3			
Alcoholic psychoses.....				7	0	7
Korsakow's psychosis.....	2	0	2			
Chronic hallucinosis.....	2	0	2			
Chronic paranoid.....	1	0	1			
Alcoholic deterioration.....	2	0	2			
Psychoses with other somatic diseases.....				2	2	4
Cardio-renal disease.....	2	1	3			
Disease of the ductless glands.....	0	1	1			
Manic-depressive psychoses.....				6	19	25
Manic type.....	2	5	7			
Depressive type.....	4	8	12			
Other types.....	0	4	4			
Involution melancholia.....				0	2	2
Dementia praecox.....				9	9	18
Paranoid type.....	3	2	5			
Catatonic type.....	2	2	4			
Hebephrenic type.....	3	2	5			
Undetermined.....	1	3	4			
Paranoia or paranoid conditions.....				1	6	7
Epileptic psychosis.....				1	0	1
Psychoneuroses and neuroses.....				1	1	2
Neurasthenic type.....	1	1	2			
Psychoses with psychopathic personality.....				1	2	3
Psychoses with mental deficiency.....				1	2	3
Undiagnosed psychoses.....				1	3	4
Without psychosis.....				0	1	1
Psychopathic personality without psychosis.....	0	1	1			
TOTAL.....				70	88	158

The following table shows the psychoses of all admissions during the year, exclusive of transfers:

	M.	F.	T.	TOTAL		
				M.	F.	T.
Traumatic psychoses . . . . .				4	1	5
Senile psychoses . . . . .				22	70	92
Simple deterioration . . . . .	11	31	42			
Depressed and agitated . . . . .	8	23	31			
Delirious and confused . . . . .	1	0	1			
Paranoid types . . . . .	2	15	17			
Others . . . . .	0	1	1			
Psychoses with cerebral arteriosclerosis . . . . .				49	53	102
General paralysis . . . . .				22	9	31
Psychoses with cerebral syphilis . . . . .				3	2	5
Psychosis with Huntington's chorea . . . . .				0	0	0
Psychosis with brain tumor . . . . .				0	1	1
Psychoses with other brain or nervous diseases . . . . .				19	3	22
Cerebral embolism . . . . .	2	0	2			
Paralysis agitans . . . . .	3	1	4			
Meningitis, tubercular or other forms . . . . .	1	0	1			
Tabes dorsalis . . . . .	2	0	2			
Acute chorea . . . . .	0	1	1			
Other forms . . . . .	11	1	12			
Alcoholic psychoses . . . . .				28	11	39
Korsakow's psychosis . . . . .	3	2	5			
Acute hallucinosis . . . . .	7	4	11			
Other types . . . . .	18	5	23			
Psychoses due to drugs or other exogenous toxins . . . . .				0	0	0
Psychoses with pellagra . . . . .				0	0	0
Psychoses with other somatic diseases . . . . .				4	7	11
Cardio-renal diseases . . . . .	3	3	6			
Diseases of the ductless glands . . . . .	0	1	1			
Other diseases or conditions . . . . .	1	3	4			
Manic-depressive psychoses . . . . .				33	76	109
Manic type . . . . .	13	22	35			
Depressive type . . . . .	15	40	55			
Other types . . . . .	5	14	19			
Involution melancholia . . . . .				3	7	10
Dementia praecox . . . . .				33	31	64
Paranoid type . . . . .	15	14	29			
Catatonic type . . . . .	3	4	7			
Hebephrenic type . . . . .	11	7	18			
Other types . . . . .	4	6	10			
Paranoia or paranoid conditions . . . . .				3	25	28
Epileptic psychoses . . . . .				3	1	4
Psychoneuroses and neuroses . . . . .				1	4	5
Hysterical type . . . . .	0	2	2			
Neurasthenic type . . . . .	1	2	3			
Psychoses with psychopathic personality . . . . .				6	4	10
Psychoses with mental deficiency . . . . .				7	12	19
Undiagnosed psychoses . . . . .				4	16	20
Without psychosis . . . . .				13	9	22
Epilepsy without psychosis . . . . .	1	0	1			
Alcoholism without psychosis . . . . .	2	1	3			
Psychopathic personality without psychosis . . . . .	4	4	8			
Mental deficiency without psychosis . . . . .	3	1	4			
Other conditions . . . . .	3	3	6			
TOTAL . . . . .				257	342	599

The psychoses represented by the cases discharged from the hospital during the year were as follows: senile psychoses, 4, or 1.53 per cent; psychoses with cerebral arteriosclerosis, 17, or 6.49 per cent; general paralysis, 5, or 1.91 per cent; psychoses with cerebral syphilis, 4, or 1.53 per cent; psychosis with Huntington's chorea, 1, or .38 per cent; psychoses with other brain or nervous diseases, 4, or 1.53 per cent; alcoholic psychoses, 38, or 14.50 per cent; psychoses due to drugs or other exogenous toxins, 2, or .76 per cent; psychoses with other somatic diseases, 7, or 2.67 per cent; manic-depressive psychoses, 81, or 30.92 per cent; involution melancholia, 5, or 1.91 per cent; dementia praecox, 42, or 16.03 per cent; paranoia or paranoid conditions, 15, or 5.73 per cent; epileptic psychoses, 3, or 1.14 per cent; psychoneuroses and neuroses, 2, or .76 per cent; psychoses with psychopathic personality, 3, or 1.14 per cent; psychoses with mental deficiency, 14, or 5.34 per cent; undiagnosed psychoses, 5, or 1.91 per cent; and without psychosis, 10, or 3.82 per cent.

The total number of cases discharged during the year was 262. Of this number, 85, or 32.44 per cent, were discharged as recovered; 135, or 51.53 per cent, as improved; 32, or 12.21 per cent, as unimproved; and 10, or 3.82 per cent, as without psychosis. Of the 85 recovered cases, 56, or 68.87 per cent, were cases of manic-depressive psychosis; 19, or 22.34 per cent, alcoholic psychoses; 1, or 1.18 per cent, psychosis due to drugs or other exogenous toxins; 1, or 1.18 per cent, involution

melancholia; 3, or 3.53 per cent, psychoses with other somatic diseases; 1, or 1.18 per cent, psychoneuroses and neuroses; 1, or 1.18 per cent, psychosis with psychopathic personality; 2, or 2.36 per cent, psychoses with mental deficiency; and 1, or 1.18 per cent, undiagnosed psychosis. Of the 135 cases discharged as improved, 23, or 17.04 per cent, were cases of manic-depressive psychoses; 36, or 26.67 per cent, dementia praecox; 18, or 13.34 per cent, alcoholic psychoses; 10, or 7.40 per cent, paranoia or paranoid conditions; 2, or 1.48 per cent, psychoses with psychopathic personality; 10, or 7.40 per cent, psychoses with mental deficiency; 10, or 7.40 per cent, psychoses with cerebral arteriosclerosis; 4, or 2.96 per cent, general paralysis; 4, or 2.96 per cent, psychoses with other somatic diseases; 3, or 2.23 per cent, senile psychoses; 3, or 2.23 per cent, undiagnosed psychoses; 4, or 2.96 per cent, psychoses with cerebral syphilis; 3, or 2.23 per cent, involution melancholia; 1, or .74 per cent, epileptic psychosis; 1, or .74 per cent, psychoneuroses and neuroses; 2, or 1.48 per cent, psychoses with other brain or nervous diseases; and 1, or .74 per cent, psychosis due to drugs or other exogenous toxins. Of the 32 cases discharged as unimproved, 6, or 18.75 per cent, were dementia praecox; 5, or 15.61 per cent, paranoia or paranoid conditions; 2, or 6.25 per cent, manic-depressive psychoses; 1, or 3.13 per cent, senile psychosis; 1, or 3.13 per cent, general paralysis; 7, or 21.86 per cent, psychoses with cerebral arteriosclerosis; 1, or 3.13 per cent, alcoholic psychosis; 2, or 6.25 per cent, psychoses with mental deficiency; 1, or 3.13 per cent, psychosis with Huntington's chorea; 2, or 6.25 per cent, psychoses with other brain or nervous diseases; 1, or 3.13 per cent, involution melancholia; 2, or 6.25 per cent, epileptic psychoses; and 1, or 3.13 per cent, undiagnosed psychosis.

A study of the entire hospital residence (including other institutions for mental diseases) of the cases discharged during the statistical year is of considerable interest. Fourteen, or 5.42 per cent, were discharged after a residence of less than one month, 101, or 39.15 per cent, after a residence of from one to six months; 50, or 19.38 per cent, from six months to one year; 39, or 15.11 per cent, from one to two years; 16, or 6.20 per cent, two to three years; 13, or 5.04 per cent, three to four years; 7, or 2.71 per cent, from four to five years; 15, or 5.81 per cent, five to ten years; and 3, or 1.16 per cent, ten years and over. The average duration of total hospital residence was one year, six months and seven days.

Of the 258 deaths occurring during the year, 154, or 59.69 per cent, represented cases dying at the age of sixty or over. In 93 cases, or 36.05 per cent, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: bronchopneumonia, 72, or 27.90 per cent; arteriosclerosis, 31, or 12.01 per cent; tuberculosis of the lungs, 18, or 6.97 per cent; endocarditis and myocarditis, 50, or 19.38 per cent; general paralysis of the insane, 18, or 6.97 per cent; diarrhea and enteritis, 6, or 2.33 per cent; lobar pneumonia, 12, or 4.65 per cent; cerebral hemorrhage, 10, or 3.80 per cent; and cancer, 7, or 2.71 per cent.

The psychoses represented by deaths occurring in the hospital during the year were as follows: traumatic psychoses, 3, or 1.16 per cent; senile psychoses, 56, or 21.70 per cent; psychoses with cerebral arteriosclerosis, 74, or 28.68 per cent; general paralysis, 34, or 13.18 per cent; psychoses with cerebral syphilis, 4, or 1.55 per cent; psychoses with brain tumor, 2, or .78 per cent; psychoses with other brain or nervous diseases, 11, or 4.26 per cent; alcoholic psychoses, 6, or 2.32 per cent; psychosis with Huntington's chorea, 1, or .39 per cent; psychosis with other somatic diseases, 1, or .39 per cent; manic-depressive psychoses, 14, or 5.43 per cent; involution melancholia, 6, or 2.32 per cent; dementia praecox, 29, or 11.24 per cent; paranoia or paranoid conditions, 10, or 3.88 per cent; and psychoses with mental deficiency, 4, or 1.55 per cent. Of the 56 cases of senile psychoses dying in the hospital during the year, 21, or 37.50 per cent, were due to bronchopneumonia; and 16, or 28.57 per cent, endocarditis and myocarditis. Of the 74 cases of arteriosclerotic psychoses, death was due in 20, or 27.03 per cent, to bronchopneumonia, in 19, or 25.67 per cent, to endocarditis and myocarditis, and in 19, or 25.67 per cent, death was attributed directly to arteriosclerosis. Of the 34 cases of general paralysis, 14, or 41.18 per cent, were reported as dying from bronchopneumonia, and in 18, or 52.94 per cent, general paralysis of the insane was given as the cause of death. Of the 29 cases of dementia praecox, death was due in 10, or 34.50 per cent, to pulmonary tuberculosis.

Of the 258 patients dying in the hospital during the year, the total duration of hospital residence was as follows: one year or less, 129, or 50.39 per cent; one to two years, 35, or 13.67 per cent; two to three years, 24, or 9.37 per cent; three to four years, 12, or 4.69 per cent; four to five years, 12, or 4.69 per cent; five to six years, 4, or 1.56 per cent; six to seven years, 4, or 1.56 per cent; seven to eight years, 6, or 2.35 per cent; eight to nine years, 3, or 1.17 per cent; nine to ten years, 5, or 1.95 per cent; ten to fifteen years, 14, or 5.47 per cent; fifteen to twenty years, 2, or .78 per cent; and over twenty years, 6, or 2.35 per cent. The average duration of hospital residence of the cases dying in the hospital during the year was three years and twenty-six days. The psychoses showing the longest hospital residence were as follows: psychosis with cerebral arteriosclerosis, one over 20 years; psychosis with cerebral syphilis, one over 14 years; alcoholic psychosis, one over 22 years; manic-depressive psychosis, one over 21 years; dementia praecox, three over 14 years, one over 21 and one over 35 years; paranoia or paranoid conditions, one over 19 and one over 22 years; and psychosis with mental deficiency, one over 39 years.

The following general statistical information relating to ward service should be of interest:

	Males	Females	Totals	Percentage
Average daily population.....	884.07	1,237.32	2,121.39	100.00
In bed.....	100.58	106.01	206.59	9.74
In restraint.....	1.17	6.19	7.36	.34
In seclusion.....	2.79	19.81	22.60	1.06
Eating in dining rooms.....	768.63	830.81	1,599.44	75.39
Eating on wards.....	115.44	406.52	521.96	24.61
Fed by nurses.....	13.83	70.63	84.46	3.98
Idle.....	359.98	610.38	970.36	45.74
Employed.....	524.17	626.95	1,151.12	54.26
Parole of grounds.....	120.67	31.56	151.63	7.14
Out for exercise.....	770.27	791.44	1,561.71	73.62
Noisy.....	30.94	125.05	155.99	7.35
Violent.....	1.01	18.71	19.72	.93
Destructive.....	3.50	40.12	43.62	2.05
Soiled or wet.....	74.47	143.78	218.25	10.29
Taking medicine.....	22.01	24.07	46.08	2.17
Infirm.....	343.53	401.24	744.77	35.11

The average daily number for the entire year is represented in each instance in the percentages given in the preceding table, that is: the average daily number of patients in bed was 206.59, or 9.74 per cent of the average daily number of patients in the wards of the hospital for the year, and the average daily number out for exercise was 1,561.71, or 73.62 per cent of the same average daily population. The large percentage of bed cases shown, nearly ten per cent, is explained by the fact that many senile and infirm cases cannot readily be removed to institutions outside of the metropolitan district and are of necessity received at the Boston State Hospital. This accounts in some measure for the large proportion of our patients who belong to the infirmary class, — about thirty-five per cent of the total number cared for. The continued shortage of nurses and attendants is partly responsible for the amount of restraint and seclusion as shown by the above table, although this is small. It will be observed that quite a large proportion of our patients goes out for exercise daily, if the percentage of infirm (including the bed patients) is taken into consideration. The average daily number of noisy patients is of considerable interest. Popular ideas regarding institutions of this type are not borne out by the actual number of violent patients. Eliminating the percentage of bed cases, the average daily number of patients employed in useful occupations is very gratifying.

#### GENERAL HEALTH OF THE HOSPITAL.

During the year the general health of the patients has been good, there having been no serious epidemics. In January an attendant in the West group was found to have a mild attack of measles, from which he recovered quickly. In the same month a patient in West G-4 developed scarlet fever. He made a good recovery, however, and no other cases appeared. In March an isolated case of diphtheria was discovered in a patient in West F-3, and he was sent to the Boston

City Hospital for care. A patient in West G-2 was found to have an attack of German measles in June, but no other cases developed.

The usual number of minor accidents and injuries occurred in the wards and were all reported in the usual manner to the Board of Trustees and the Department of Mental Diseases, and thoroughly investigated. There have been no homicides nor suicides during the year.

The treatment of neurosyphilis has been continued by Dr. Roy D. Halloran during the year. Three hundred and ninety-five treatments were given to fifteen patients, making an average of 26.33 treatments per patient. These were as follows:

Tryparsamid—Intra-arterial (dose 3 gm.)	184
Sulpharsphenamine—Intravenous (dose .6 gm.)	113
Sulpharsphenamine—Intracarotid (dose .6 gm.)	98

The chief investigation in the treatment of general paralysis during the year consisted in the injection of drugs directly into the carotid artery, at first by the open dissection method and later by the simpler method of direct puncture, according to the technique of Enderlin and Justi. The purpose was to place the concentrated doses in close contact with brain tissues. Treatments were begun in August, 1924, and were continued weekly through June, 1925. Results were noted in three groups, as follows: In the first, sulpharsphenamine in .6 gram doses was employed until January, 1925, in 9 cases. In the second, tryparsamid in 3 gram doses was used from January to June, 1925, in 11 cases. Improvement occurred mentally in 6 cases, physically and serologically in 8. Tentative conclusions were reached from over 250 injections that this method could be utilized indefinitely without injury to the artery and without untoward systemic signs. It was thought significant that none of the cases became worse although some were deteriorating when treatment was begun. Treatments were finally discontinued because it was believed that this method held no advantages over the less technical methods already in use. In the third group, 4 cases, from April to June, 1925, were given intracarotid injections of sulpharsphenamine preceded six hours by the injection of 100 c.c. of 15 per cent saline solution intravenously. The purpose was to first dehydrate the brain and theoretically increase the penetrability of the tissues so that the drug would be more readily absorbed when the brain resumed its usual state. This is believed to occur in about six hours. Treatments were discontinued because practically no improvement was noted and technical difficulties were encountered.

Seven hundred and eighty-three Wassermann examinations were made for us by the State Department of Public Health,—660 blood serum and 123 cerebrospinal fluid.

#### EMPLOYEES.

On September 30, 1924, there were 409 persons in the employ of the hospital. During the year 551 were appointed, 525 resigned and 28 were discharged. Nine hundred and sixty persons occupied 451 positions,—a rotation of 2.13. The average daily number of employees during the year was 415.37, with 8.00 per cent of vacancies. The average daily number in the ward service was 236.71 with 9.65 per cent vacancies. The ratio of ward employees was one to 8.96, and of all employees, one to 5.10. The shortage of employees has continued, with a slight improvement during the year. This condition affects the efficient and proper care of patients in various ways, especially in the wards. With a full quota of employees more patients could be occupied and less restraint and seclusion required. The lack of ward supervision, moreover, has resulted in a destruction of clothing and other ward supplies that is of considerable importance from a financial point of view. It is difficult, with the limited number of nurses and attendants, to handle satisfactorily the increasingly large number of visitors who come to the hospital to see their relatives and friends. We frequently have eight or nine hundred visitors in one day, the highest number on any one date during the year being 1,129. The decrease in the number of nurses is, of course, a material factor in increasing accidents, injuries and escapes. It is still difficult to maintain an adequate force of female nurses and attendants. This is due, doubtless, in part,

to the fact that the hours of duty are long, and association with mental cases is not attractive to those who are not familiar with this line of work. However, the general hospitals have also been affected by this problem to a certain extent. Under the circumstances, an increased compensation should be seriously considered. One of the factors which has interfered with our maintenance of an adequate force of ward employees heretofore has been the lack of comfortable living quarters. At the present time we are unable to properly house male attendants. The employees' cottage occupied by men has a capacity of only 42. Our quota of male attendants is 114. It has been necessary for them to be quartered in attics and in many places which are far from being desirable. We are badly in need of a new building for male ward attendants. We have no satisfactory place for employees engaged in outside work. The old farmhouse in the West group, which furnishes quarters for only 19 persons, is in such a condition that it should be torn down and replaced as soon as possible. There has always been difficulty in inducing our employees to live in it. The fact that our male attendants have been scattered around in so many different places has, of course, made it difficult to keep them under proper supervision.

The shortage of staff quarters is also a serious matter which should be remedied as soon as the cost of construction will permit. Various officers and employees assigned to the East group have from time to time been compelled to live in buildings in the West group, nearly a mile away.

#### MEDICAL SERVICE.

There have been several changes in the medical staff of the hospital during the year. On December 4, 1924, Dr. George G. Kelly was appointed assistant physician to fill the vacancy created by the promotion December 1, 1923, of Dr. Roy D. Halloran to senior assistant physician. Dr. Kelly was educated in the High Schools of Fall River and Lowell, and received his medical degree from the Hahnemann Medical College, Chicago, in 1908. Since that time he had been in private practice in Bellows Falls, Vt. To fill a vacancy of long standing, Dr. Benjamin Pollack was appointed pathologist on June 15, 1925. Dr. Pollack graduated from Tufts College Medical School in 1922, and from that time to the date of his appointment here he served in the Neurological Department of the Boston City Hospital and also did some work with Dr. Leary at the Tufts Medical School. He resigned on October 24, 1925, and removed to Florida. I regret to report that after nearly five years of service as senior assistant physician at this hospital Dr. John C. Lindsay resigned on July 20, 1925, to accept an appointment as resident physician at the Reformatory for Boys, at Cheshire, Conn. Dr. George H. Maxfield was appointed senior assistant physician to succeed him on August 1, 1925. Dr. Maxfield received his preliminary education at Tilton School, N. H., and graduated from Harvard Medical School in 1903, since which time he has had considerable institution experience. He served as interne for one year at the State Infirmary, for two years as assistant physician at the New Hampshire State Hospital in Concord, and from June 1, 1905, to November 15, 1910, at the Boston State Hospital as assistant physician. From that time until the time of his reappointment here he was surgeon at the Soldiers' Home at Chelsea. To fill an existing vacancy Dr. Alexander Marcotte was appointed assistant physician on July 25, 1925. After a preliminary education in Montreal he received his medical degree from the Université de Montreal in 1925. He served six months as assistant physician at the Ste. Justine Hospital for children at Montreal. Dr. Anna E. Parker, assistant physician, resigned on January 1, 1925. To fill this vacancy Dr. Anna C. Wellington was appointed on October 1, 1925. Dr. Wellington received her medical degree from Tufts College Medical School in 1912, was interne for six months at the Boston Dispensary Children's Hospital in 1912, executive assistant and assistant physician at the Psychopathic Department of this hospital from January 1913 to May 1917, assistant physician at the Medfield State Hospital from October 1919 to June 1921, and from 1921 to 1924 was in charge of the Mission Hospital at Chanda, C. P., India. There have been no changes in the staff of consulting specialists during the year.

Staff meetings have been held as usual, alternating between the East and West



groups. Efforts have been made to present all new admissions at these meetings, as well as cases about to leave the hospital on visit or cases to be discharged.

Dr. Irving J. Walker of Boston has visited the hospital regularly and had charge of the surgical work during the year, assisted by Dr. Llewellyn H. Rockwell. Three cases were sent to the Boston City Hospital for operation. The more important operations of the year at this hospital were as follows: Amputations—arm, 1; breast, 2; forefinger, 1; leg, 4. Appendectomy, 2. Cholecystotomy, 1. Complete iridectomy, 1. Complete hysterectomy, 2. Double inguinal herniotomy, 1. Excision of epithelioma and plastic operation of lower lip, 1. Excision of neck of humerus, 1. Exploratory laparotomy, 1. Gangrenous gall bladder, 1. Herniotomy, 4. Incision of abscess and drainage of cheek, 1. Incision of carbuncle, 1. Incision of cancerous glands of neck, 1. Incision and drainage: abscess of neck, 2; abscess of thigh, 1; suppurative appendix, 1. Incision of leg, 1. Paracentesis of abdomen for ascites, 1. Purulent peritonitis, 1. Reduction of fracture of humerus, 1. Removal of carbuncle, 1. Repair of fracture of patella, 1. Sub-parietal decompression, 1. Tumor of testicle, 1.

#### OUT-PATIENT SERVICE.

The supervision of patients in family care and those on visit, as well as the after care of cases discharged from the custody of the hospital, is an important part of the work of the out-patient department. Medical advice is given to many persons who come to the hospital to consult members of the staff on matters concerning their own welfare or that of their family or relatives. Frequent visits are made by the social workers to patients who have been allowed to go home or who have left the hospital temporarily for family care. Patients on visit are also required to report at the hospital at regular intervals for observation. Many former patients who have been discharged are kept under the supervision of our social workers and physicians. Some cases which appear for consultation are referred to their family physicians or to the Boston Psychopathic Hospital. The following table shows the movement of patients under the supervision of the out-patient department:

	Males	Females	Totals
In family care September 30, 1924.....	1	11	12
On escape September 30, 1924.....	6	2	8
On visit September 30, 1924.....	155	190	345
Dismissed to family care during the year.....	0	8	8
Escaped during the year.....	25	5	30
Dismissed on visit during the year.....	790	697	1487
Dismissed on visit from family care during the year...	0	3	3
Admitted from family care during the year.....	0	7	7
Admitted from escape during the year.....	13	4	17
Admitted from visit during the year.....	739	575	1314
Admitted from family care and discharged.....	1	0	1
Admitted from escape and discharged.....	5	2	7
Admitted from visit and discharged.....	110	137	247
Admitted from visit from family care.....	0	1	1
In family care September 30, 1925.....	0	10	10
On visit September 30, 1925.....	96	175	271
On escape September 30, 1925.....	13	1	14
On visit from family care September 30, 1925.....	0	2	2

#### SOCIAL SERVICE DEPARTMENT.

The following is a summary of the social service work done during the year under the direction of Miss Marie L. Donohoe:

Total number of cases considered.....	1,193
New cases, Hospital.....	227
New cases, School clinic.....	169
New cases, community.....	13
Renewed cases from previous year.....	105

Continued cases from previous year	{ active, . . . . .	332
	{ inactive, . . . . .	296
	{ closed, . . . . .	51
Closed cases during the year:		
Hospital . . . . .		459
School clinic . . . . .		169
Community . . . . .		18
Cases continued . . . . .		547
Sources of new cases:		
Referred by physicians:		
Hospital . . . . .		156
School . . . . .		169
Referred by community agencies . . . . .		43
Referred by friends or relatives . . . . .		14
Referred by initiative of patients . . . . .		8
Selected by Social Service . . . . .		6
Purposes for which cases were referred:		
Histories:		
Hospital patients . . . . .		95
School clinic cases . . . . .		169
Investigation:		
Conduct disorders . . . . .		53
Employment situations . . . . .		36
Home conditions . . . . .		75
Statements of patients . . . . .		51
Statements of others . . . . .		51
Full social investigations . . . . .		123
Supervision:		
In home . . . . .		232
In industry . . . . .		48
In community . . . . .		129
Care of patients' families . . . . .		71
Personal services . . . . .		148
Placement . . . . .		73
For medical care . . . . .		38
Ex-service investigations . . . . .		51
To care for property . . . . .		14
Abstracts sent on . . . . .		53
Location of relatives . . . . .		30
Problems in all cases:		
Disease:		
Mental . . . . .		377
Physical . . . . .		84
Sex problems:		
Promiscuity . . . . .		5
Wayward tendencies . . . . .		17
Environment:		
Financial difficulties . . . . .		55
Employment difficulties . . . . .		57
Unsuitable surroundings . . . . .		35
Friction (family, 37; others, 4) . . . . .		41
Marital difficulties . . . . .		40
Personality problems:		
Temperament . . . . .		58
Anti-social habits . . . . .		40
Vacillating interests . . . . .		9
Educational problems:		
Readjustment of habits of mind . . . . .		118
Recreation,—church; social relationships . . . . .		101

Legal problems:	
Concerning property or support . . . . .	67
Resulting from conduct of patient . . . . .	17
General problems:	
Family and children . . . . .	70
Friendlessness . . . . .	27
School . . . . .	169
Miscellaneous . . . . .	18
Nature of service rendered:	
Medical:	
Information relating to school history . . . . .	169
Information relating to medical history . . . . .	237
Information relating to home conditions . . . . .	152
Information relating to conditions of out-patients . . . . .	263
Arrangement for medical assistance . . . . .	47
Social:	
Adjustments for patients:	
Environment . . . . .	103
Personal relations . . . . .	139
In industry . . . . .	38
In recreation . . . . .	66
Advice to relatives . . . . .	174
Advice to patients . . . . .	215
Advice to others . . . . .	93
Connecting with agencies . . . . .	118
Connecting with individuals . . . . .	36
Family assistance:	
Legal . . . . .	25
Financial . . . . .	26
Miscellaneous . . . . .	50
Arrangements for further study or training . . . . .	29
Personal services . . . . .	219
Placement work:	
Home . . . . .	31
Industry . . . . .	15
Abstracts sent on . . . . .	55
Relatives located . . . . .	24
Total number of visits . . . . .	2,734
To patients on ward . . . . .	468
To patients on visit . . . . .	480
To relatives or friends . . . . .	786
To social agencies . . . . .	585
To others . . . . .	415

During the year the material in the paper read last year by Miss Donohoe, at Toronto, was incorporated in an article on "Psychiatric Social Work" published in "Mental Hygiene." In May, Miss Donohoe read before a group of psychiatric social workers a paper relating to the work carried on at the Hopkinton Occupational Therapy Center.

There has been no change in the authorized personnel of the social service department, and the need of more workers and better salaries is still felt in order to carry on in an efficient manner the extensive work of this department. The paid workers are the same as last year,—one head social worker and two assistants,—augmented during nine months of the year by three students from the Smith College School for Social Work.

#### PATHOLOGICAL LABORATORY.

The following is a summary of the routine work of the pathological laboratory:—Autopsies, 61; Blood examinations; Cell count, red, 34; Cell count, white, 35; Cell count, differential, 35; Hemoglobin estimation, 31; Bacteriological examina-

tions, 37; Cerebrospinal fluid examinations, 27; Examination of feces, 1; Examination of stomach content, 1; Miscellaneous, 24; Pathological examinations, 16; Sputum examinations, 9; Urinalyses, 1,089.

Dr. Benjamin Pollack, appointed pathologist in June, resigned in October, and we are still indebted to Dr. Marjorie Fulstow, pathologist to the Department of Mental Diseases, for autopsy work at the hospital during the time we were without a pathologist.

The number of deaths in the hospital during the year was 265, of which 61 came to autopsy, making the autopsy percentage for the year 23.02.

The following shows the psychoses represented in cases coming to autopsy:—Traumatic psychosis, 1; Senile psychoses, 10; psychoses with cerebral arteriosclerosis, 19; General paralysis, 4; Psychoses with cerebral syphilis, 2; Psychosis with Huntington's chorea; Psychosis with other brain or nervous disease, Tabes dorsalis, 1; Alcoholic psychosis, 1; Psychoses with other somatic diseases, 2; Manic-depressive psychoses, 2; Dementia praecox, 11; Paranoid condition, 6; Undiagnosed psychosis, 1.

The causes of death of these cases were as follows: Abscess of lung, 2; Arteriosclerosis, 9; Asphyxiation by position (accidental), 1; Bronchopneumonia, 14; Carcinoma of duodenum, 1; Carcinoma of liver, 1; Cerebral hemorrhage, 2; Cystitis, acute, 3; Diarrhea and enteritis, 1; Dilatation of heart, acute, 1; Empyema, 1; Endocarditis, chronic, 3; Enteritis, chronic, 1; General paralysis, 1; Lobar pneumonia, 5; Miliary tuberculosis, acute, 1; Myocarditis, chronic, 6; Pernicious anemia, 1; Pulmonary thrombosis, 1; Pulmonary tuberculosis, 4; Sepsis, 1; Tubercular peritonitis, 1.

#### DENTISTRY.

The resident dentist, Dr. Lawrence H. Stone, resigned February 1, 1925, to enter private practice, and on February 3, 1925, Dr. Martin H. Rose was appointed to this position. The following work was done in this department during the year: Alveolotomies, 4; bridges, 2; cleanings, 683; curettements, 60; examinations, 2,027; extractions, 2,222; fillings, 881; medicinal treatments, 318; miscellaneous, 50; parotid duct drainage, 1; patients treated, 2,617; plates, 11; plates repaired, 3; pyorrhea treatments, 73; restorations, 25; sutures, 58; treatments of inflammatory facial and gauze drains, 29.

#### HYDROTHERAPY.

During the year the hydrotherapy department has received the usual amount of attention from Dr. Rebekah B. Wright, representing the Department of Mental Diseases. Mrs. Helena B. Hubbard gave up her work as hydrotherapist on August, 1 1925, when she went on a leave of absence because of poor health, resigning later. During the year 1,949 packs and 4,855 continuous baths were given, making the average daily number of packs 5.33 and the average daily number of continuous baths 13.30. The following treatments were also given during the first ten months of the year: Salt glows, 413; Sitz baths, 329; hot and cold to spine, 450; foot baths, 157; saline baths, 3; Swedish shampoos, 553; fan douches, 1,566; needle sprays, 1,952; wet mitten friction, 1; and vapor baths, 61; to which should be added 656 tonic baths of various kinds. The patients treated had the following psychoses: Manic-depressive, manic type, 1; depressive type, 7; dementia praecox, paranoid type, 1, catatonic type, 7, hebephrenic type, 5; type undetermined, 1; psychoneurosis, hysterical type, 1; psychosis with other somatic disease, encephalitis lethargica, 1; paranoid condition, 2; psychosis with mental deficiency, 1.

#### SCHOOL CLINIC.

The school clinic work has been continued during the year by Dr. Alberta S. Guibord in the public schools in Everett and Somerville. From September, 1924, to June, 1925, 414 children were examined, showing the following grades of intelligence: Superior normal, 1; normal, 39; dull normal, 75; borderline, 136; feeble-minded, upper range, 85; feeble-minded, lower range, 50; diagnosis deferred, 28. Among the children examined were found 3 epileptic and 15 psychopathic and neurotic. In the group showing diagnosis deferred, all the cases, with one exception, were potentially feeble-minded and borderline,—seven in the lower range. Diagnosis was deferred, however, because of language handicap, defective sight

or hearing, disturbed emotions, or some other condition affecting the validity of the tests. That forty (approximately ten per cent) of normal intelligence were sufficiently retarded in their school work, to be referred to the school clinic, illustrates the fact that mental defect is not the only cause for backwardness in school. Physical defects, bad home conditions, emotional conflicts, attention diverted by precocious sex and other unwholesome interests, and even misunderstanding on the part of teachers, were found to be causative factors. The borderline and feeble-minded groups, and to some extent also the dull normal, are the ones of particular significance to the psychiatrist and to society. Evidence seems to show that the criminal, the insane, the dependent and many other of the burdens carried by the responsible body of society, are largely made up of these grades of intelligence. It is generally agreed that the hope for relief from these burdens is in prevention. Detection while still in school, and training in useful occupations, are important parts of the preventive treatment. The part of the school clinic is to discover and prescribe; the part of the school is to provide the training. Slowly but surely the schools are establishing courses of instruction suited to these particular pupils who cannot profit by academic training beyond a few grades.

#### TRAINING SCHOOL FOR NURSES.

Miss Elizabeth M. Sheehan, assistant superintendent of nurses, resigned on August 1, 1925, after twenty-one years in the State service. With this exception, the executive staff remains unchanged. During the year three seniors completed their three years' course of training. There are now employed in the wards of the institution eleven of our own graduates. One of the most important objects of the nurses' training schools is the instruction of employees who are to care for the patients in our wards, although it is also desirable to graduate nurses who are qualified to care for psychiatric cases in the community. It is becoming more difficult, however, to maintain training schools for nurses in the State hospitals. There are now no pupils in our training school and no applications are being received from those who meet the minimum entrance requirements. Graduate nurses find work in other fields of nursing more attractive as well as more remunerative, and there is continued difficulty in retaining our own graduates, many of whom leave the service soon after the completion of their training to accept positions which are more profitable financially. If the standards of our hospitals are to be maintained, we must have more graduate nurses. To accomplish this, it will be necessary to offer a higher rate of pay to graduate and charge nurses. The systematic instruction of attendants, both male and female, is being carried on along the lines prescribed by the committee on training schools, representing the Department of Mental Diseases.

#### OCCUPATIONS AND INDUSTRIES.

Miss Martha M. Taintor resigned as head occupational therapist on December 31, 1924, and the work of the department was carried on under the direction of Miss Gladys A. Willey until the appointment on June 15, 1925, of Miss Clara H. Offutt, the present head occupational therapist. Of the 1,181 patients who have come under the supervision of this department during the year, 9 improved enough to be allowed to go home, 12 were benefited sufficiently to be capable of working in other departments of the hospital, 14 were transferred to other hospitals, and 63 died. The average daily number occupied in the male wards was 108, and in the female wards 291, making a total average daily number of 399. The highest number occupied on any one day was 541. The authorized personnel of this department has been increased by two during the year and now consists of one head occupational therapist and eight assistants. Four attendants are also assigned to this department. Six students from the Boston School of Occupational Therapy have each had one month of practical experience at the hospital, taking a great deal of interest in the work. The department is developing and growing each year. Classes are conducted in all the ward buildings except West D, where some of the men are paroled and working outside and in the industrial shops and others attending classes in the C-2 class room. A class is held in each ward in West A, the building for chronic disturbed women, with the result that the patients have become interested, happier, less destructive and more easily managed. In

West B a class is carried on every morning in the class room, where the patient who needs and can do more varied and advanced work is given the thing she particularly needs. Classes on West B-5 and B-6 have responded successfully and B-7, a very disturbed ward, has developed several patients who are keenly interested and have shown some insight as to the reason for the work. In the East group classes have been continued very satisfactorily in all the ward buildings except G, and the classes in B and C especially have shown beneficial results. The work for the women consists of basketry, weaving, needle work, rug making, plain sewing, braiding hats, rake knitting, plain knitting and crocheting. In West C a class of thirty men is doing splendid work of a more advanced type, making rake knit caps, toys, rugs, baskets, woven table runners, and doing simple bookbinding, card weaving, block prints and wood carving. In West F a large class has recently been organized in the class room, where patients can concentrate and do better work than on the wards. These men were rather reluctant to enter the class at first, but now are quite enthusiastic and come without urging. Classes are also conducted on each ward of the West F Building,—the infirmary building for men,—occupying patients who can do the simple problems of sand-papering toys, winding balls and playing games. In the admission and disturbed building, West G, most interesting classes are held, the patients being capable of good work. Some simple physical exercises are being given and the joy and interest with which the patients respond shows the great need for a trained physical director to carry on this part of the work. We have also been able, by means of a small fund given the department, to have little parties with refreshments, on each ward, which have been very helpful in stimulating good fellowship. As a factor in the reconstruction, habit training and general helpfulness of hospital life, it is the object of the occupational therapy department to put into practice the definition as accepted by the National Association. It is our desire and aim,—through the use of crafts, color, needle work and other mediums which have been found to stimulate,—to help to restore, as far as possible, the physical and mental functions of men, women and children in hospitals, by means of carefully planned and guided work, exercise and amusements, and to help, if we can, to give them the ability to meet the world on a normal basis. If this is not possible, then to help to give them some stability, some confidence, some occupation whereby they may become less destructive and happier and better ward citizens.

During the year the "occupational therapy center for mental patients" at Hopkinton has continued and has shown real progress. There has been a slight increase in the number of patients at this place and with the full time services of an occupational therapist it has been possible to supervise the mental and physical health of the patients as well as their employment and recreation. We have still kept in sight the purpose of the Center,—a stepping stone from the hospital to normal community life. It takes the place of the convalescent home for the physically ill. We have given the patients freedom and opportunities that could not possibly be given in a large state hospital. We have also expected of them much that could not be expected in the hospital,—responsibilities and duties to prepare them to take up their regular places in the community later. There has been a marked improvement in all the patients who have been at the Center except in two cases. One of these patients still needs the careful guidance of the home and the other had to be returned to the hospital for further care. The adjustments of all who have left the Center have been excellent. Three patients did not get along well the first time they left. They were urged to return and on the second trial, with the guidance of the Social Service Department, they adapted themselves to conditions and at the present time are getting along comfortably and happily in the community. There were twenty-four different patients at the Center during the year, including three from the Boston City Hospital, one from the Peter Bent Brigham Hospital, one from the Westborough State Hospital, three from the Worcester State Hospital and one from the Foxborough State Hospital. All of the other patients were from our own institution. The appreciation of the other hospitals has been very gratifying. They have been delighted to find a place to board patients where an effort is made to really re-educate and reestablish the patients in normal community life. Several of the patients who have left the Center have been of real economic value in the world,

—patients who are earning at least \$25 a week and who are well worth the effort spent upon them from the economic as well as the humanitarian standpoint. It is still impossible to measure financially the advantage of such a home. In three cases we feel definitely that unless there had been such a place the patient would unquestionably have had to return to the hospital. One of these patients has had five different hospital residences and this year, because she could go to Hopkinton for a month's rest, she was able, with the help and understanding given her at the Center, to avoid a return to the hospital. For five months she has been earning \$15 weekly besides her maintenance, and is apparently making a perfectly satisfactory adjustment. The fund of \$500 again given by the Committee of the Permanent Charity Fund Incorporated was used to help supplement the board of patients, and for general running expenses. The services of a full time occupational therapist were paid for by Mrs. L. Vernon Briggs, who has continued to show her interest in the Center and to give considerable help and advice in the work of the patients there. Nearly \$1,000 has been taken in for work done by the patients, through the treasurer, and over \$200 has been taken in directly by the patients for work done for their own personal friends. All of the money has been turned back to the patients after deducting the cost of the materials. The question of funds is an acute one. Many patients in the hospital could be given the benefit of the Center, were they able to pay the board needed for their care. The State should allow sufficient money to pay the board of patients at such a place. It would not be more than the cost for a patient in the hospital. The Committee of the permanent Charity Fund Incorporated again promises \$500 for the coming year, for the furthering of the undertaking. Mrs. Briggs also promises to pay the salary of a full time worker to help develop and enlarge the work. As in the past, the work of the Center has been carried on under the direction of the Social Service Department. The financial side is cared for by Mr. William F. Whittemore, who kindly continues to act as treasurer and relieve the Social Service Department of the financial responsibilities. We feel that instead of curtailing the work it should be enlarged and that other Centers of this kind should be established.

Miss Madge B. Lytell has directed the work of the industrial room for women in the East group during the year. This consists of basketry, rug making, weaving, lace making, embroidery, knitting, crocheting, sewing, mending, etc., and the estimated value of the articles produced in this department was \$7,748.90. The industrial work for men has been carried on under the direction of Mr. James F. Hurley. This is done entirely in the basement of the B Building in the West group, and includes shoe repairing and various other repair work, the manufacture of several different kinds of brushes, brooms, coat hangers, hats and numerous other articles. The value of articles produced during the year is estimated at \$6,972.21. The articles produced in the occupational and industrial departments in the hospital for the year represented a total valuation of \$15,196.11.

#### AGRICULTURAL ACTIVITIES FOR THE YEAR.

Mr. Lawrence J. Olsen has had charge of the work of the farm for the past year. A total of 138 acres was under cultivation. This consisted of 37 acres devoted to gardening and 10 acres plowed and sowed to grass, in addition to 87 acres of meadowland and 4 acres of orchards and small fruits. The estimated value of farm products during the year was \$16,179.23.

#### FINANCIAL STATEMENT.

The maintenance appropriation for the year was \$775,620.00. To this was added \$3,838.86, brought forward from the preceding year, making a total of \$779,458.86. The maintenance expenditures of the hospital for the year were as follows:

	Amount Expended	Per Capita	Percentage of Total
Personal services.....	\$358,058.54	\$167.060	47.632
Travel, transportation and office expenses.....	6,108.09	2.850	.812
Food.....	184,200.46	85.942	24.504
Religious instruction.....	2,079.98	.970	.276
Clothing and materials.....	29,812.79	13.909	3.966
Furnishings and household supplies.....	45,612.87	21.281	6.068
Medical and general care.....	25,355.74	11.830	3.373
Heat, light and power.....	53,184.95	24.815	7.075
Farm.....	5,998.28	2.798	.798
Stable, garage and grounds.....	5,999.49	2.799	.798
Repairs, ordinary.....	15,366.58	7.169	2.044
Repairs and renewals.....	19,946.75	9.307	2.654
<b>TOTAL.....</b>	<b>\$751,724.53</b>	<b>350.730</b>	<b>100.000</b>

Based on the average daily population of the hospital (2143.30), the per capita cost of maintenance for the year was \$350.73, or \$6.7448 per week. The per capita cost for the year 1924 was \$355.115, or \$6.829 per week. An important factor in keeping up the cost of maintenance is the type of patients cared for in this institution, about one-third of the population being of the infirmary class, with a large percentage of bed patients. The absence of a dairy and the lack of agricultural facilities are serious considerations. Owing to the fact that our old ward buildings are made up of small units and consist largely of single rooms, a greater number of employees and more supervision are required than would be necessary in buildings of another type where only custodial care is needed. No buildings designed for purely custodial patients in considerable numbers have ever been erected at this institution. The cost of maintaining the old buildings erected many years ago by the city of Boston increases each year.

#### GENERAL OPERATIONS FOR THE YEAR.

The usual visits were made during the year by the Department of Mental Diseases and its representatives, as well as the Legislative Committee on Public Institutions. The hospital was also visited by Lieutenant Governor Allen and the members of the Executive Council.

Mr. Stetzel and Mr. Ryan, representatives of the Department of Public Safety, made an elaborate survey of the hospital and submitted recommendations relating to fire prevention which they believed to be necessary. Following the disastrous fire at the Scobey Hospital on Beacon Street in December, a thorough investigation was made by Fire Commissioner Theodore A. Glynn of the City of Boston of all the hospitals in the community. The following is a very brief quotation from his recommendations for the Boston State Hospital: "That all the old buildings, wooden and stucco covered, should be demolished and buildings of 1st class fire-proof construction be erected in their stead." He concludes his report with the following remarks: "These recommendations, which may appear extensive, are an urgent necessity and based on the nature of the occupancy, and the character of the construction which is hardly fit for persons of normal physical and mental condition." In November, 1924, we had a fire in the occupational therapy room in the West C Building, which fortunately did not do a great amount of damage. This was due to the neglect of an employee who had failed to remove oiled rags from the building, in direct violation of the hospital rules. There was also a fire in the clothes room of the West D Building in the following month. This was doubtless due to a lighted pipe left by one of the patients in his overcoat pocket. These are warnings which should not be disregarded. The question was considered by the Trustees of the hospital to be one of such great importance that, as shown by their report, they have recommended some very extensive changes (page 4). It is, of course, to be conceded that the removal of all of the old stucco buildings, which have a capacity of 620 patients, and the replacement of these structures by modern buildings of fireproof construction would mean a considerable expenditure of funds. There is, however, no other way to prevent the possibility of a considerable loss of life unless these changes are made. If the welfare of our patients is to be adequately safeguarded, plans for such construction should be made at the earliest possible moment. The buildings in question cannot be rendered safe by additional fire escapes or even by sprinklers, which are out of the question in day rooms and dormitories. An appropriation of \$4,400, available



for the purpose of fire prevention, was expended during the year by the Department of Mental Diseases for the installation of a number of kalamein doors in the West C, D and H buildings.

Attention should be called at this time to the necessity of making provision at some future time for the isolation of patients suffering from tuberculosis. A separate building is needed for this purpose. It is hardly fair to the other patients to expose them to the danger of infection from such a disease as tuberculosis.

The interiors of the East and West group kitchens were repainted during the year, very noticeably improving the appearance of these buildings.

The roofs of the power house and the laundry building were repaired quite extensively during the year.

The rather extensive alterations which have been under way for some time in the West group Administration Building were completed during the month of April. This has enabled us to place new and larger dining rooms at the disposal of the staff and the clerical force of the West group, resulting in a material improvement in the food service and adding greatly to the comfort of the medical officers.

Two new cabinet dryers were installed in the laundry in March.

As we are unable to furnish various officers and employees of the hospital with garage accommodations, they have been authorized by the Board of Trustees to maintain their own metal fireproof garages in the rear of the West B Building, subject to such regulations as may be prescribed by the Superintendent.

The installation of loud speakers in the various buildings of the East group, with one exception, which was undertaken during the previous year, was completed in 1925. No other form of entertainment has been enjoyed and appreciated as much by the patients as the programs which they receive daily over the radio. It has become much more popular than even the moving pictures or dancing. It has very decided advantages in that its benefits can be extended to patients of the noisy and violent type who, naturally, are not permitted to attend entertainments in the chapel, as well as to those who are confined to their beds in the infirmary wards and never have an opportunity to take part in entertainments of any kind.

The wooden steps at the entrances to various buildings in the East group have been replaced during the year by cement structures, which will do away with the necessity for frequent repairs.

Quite a number of yards of cement walk have been laid in the West group, principally in the neighborhood of the kitchen and dining room building, which will render that place much more accessible from the various other buildings.

The work of filling in the land in the rear of the East group buildings was very nearly finished during the year and the contractor who is removing ashes for the Dorchester District has now commenced work on the filling in of the land west of Morton Street.

The roof of the West G Building, which was in a very bad state of repair, was replaced during the year, asphalt shingles being used for this purpose.

The window guards on this same building were also replaced during the year. It is to be hoped that this will do away with the considerable number of escapes from the G Building, with which we have had to contend heretofore. The amount of money available for the purpose was, unfortunately, not sufficient to make it possible to use tool-proof window guards, which would be very desirable. The necessity of having a better grade of guards on the windows of a building housing disturbed patients is, I think, shown by the fact that on two different occasions patients have already managed to cut their way through these new window guards with hacksaws. If we are to continue the care of a considerable number of criminal cases, as we have in the past, this one building, at least, should be made secure.

Hoods have been installed over the ranges and kettles in both the East and West group kitchens. It is to be hoped that this will do away with some of the discolorations of the paint in the monitors.

A new switchboard was installed by the American Telephone and Telegraph Company in the office of the East group during the summer.

The employees' club, which is housed in a building located just south of the F Building in the West group, has continued to flourish and has become quite

popular. It is a source of a great deal of comfort to the employees of the hospital, to the patients who are allowed the freedom of the grounds, and to the large number of visitors who are present at the hospital daily. It furnishes the employees, when off duty, with a place of recreation. Many of them take advantage of the opportunity to use the pool and billiard tables, play cards, etc. Those who do not care for entertainments of this kind get a great deal of pleasure out of listening to the radio. The club store makes it possible for all who wish to do so to obtain light lunches at any time. All of the employees of the hospital are given the freedom of the clubhouse. Dances and various other entertainments are held from time to time. The club is conducted by the employees at their own expense, although it is under the complete supervision and control of the Trustees of the hospital and subject to such regulations as may be issued from time to time by the Superintendent.

The roof on the barn in the East group was extensively repaired during the summer. This building is covered with paroid roofing material, which does not last very long.

The carpenters and masons completed a cement areaway around the windows at the west end of the paint shop in October.

One new washing machine was installed in the laundry during the year.

At the end of the year the interior of the West D Building was being repainted. This is something which had been badly needed for a long while.

In the power house three additional hand stokers were installed during the spring.

A very interesting model of the hospital grounds and buildings was completed in 1925. This is to be seen in one of the exhibition rooms in the occupational therapy center in the West C Building. It is a very attractive arrangement, showing very graphically the location of all of our buildings. Practically all of the work on this model was done by the patients of the hospital under the direction of the head occupational therapist. The carpenter work, which was contributed by the hospital force, was the only thing done outside of the occupational therapy department.

Forty-eight women were transferred to the Grafton State Hospital by the Department of Mental Diseases on November 17th.

The Governor and Council have set aside the sum of \$18,000 for the purpose of fire prevention at this hospital from a fund made available by Chapter 347 of the Acts of 1925. This amount will be expended by the Department of Mental Diseases.

No annual report for the Boston State Hospital would be complete without some reference to the Canterbury Branch of Stony Brook. The channel of the brook has not been cleaned out by the City of Boston since 1919, and it is entirely overgrown with weeds and very seriously obstructed. As a result of this obstruction, from thirty to forty acres of our land are covered with water several times during the course of each year. It occasionally gets into the steam conduit and has filled the pump room of the power house at various times to a depth of a foot or more. There is always a possibility that such a flooding of our grounds may render it impossible to provide heat for the West group, which now has a capacity of over 1,500 beds. If this should happen, the preparation of food for patients in that group would become exceedingly difficult, as all of our cooking facilities in the central dining rooms are very largely dependent upon steam. The channel of the brook has been covered by a conduit by the City of Boston up to the point where the brook enters the hospital property on Harvard Street. It runs through our grounds for a distance of approximately 4,500 feet. The only way that property of the State can be safeguarded here is by extending the conduit for a distance of not less than 2,200 feet to the point in the hospital grounds where the brook crosses the road to the West group. Cleaning the channel is only a temporary expedient at best. To accomplish any great amount of good it would have to be done annually. The cost of this procedure, I am inclined to think, would be prohibitive. It has been suggested that the brook could be covered in at a point northwest of the hospital and outside of our grounds. This would accomplish no good purpose and would only serve to make matters worse, as it would dam up the water on our grounds and make its free egress impossible. Chapter 33

of the Acts of 1925 made provisions for the appointment of a special commission "to investigate the necessity for the construction of a covered channel to accommodate the waters of the Canterbury Branch of Stony Brook in the City of Boston." This commission was to consist of the Commissioner of Public Works of the City of Boston, an engineer of the Department of Public Health, and one citizen to be appointed by the Finance Commission of the City of Boston. The report of this commission is to be laid before the Legislature in time for action during its 1926 session. It is to be hoped that something definite can be accomplished soon.

#### NEEDS OF THE HOSPITAL FOR THE COMING YEAR.

The following items relating to construction deemed necessary for the coming year have been submitted to the Department of Mental Diseases:

1. Administration Building and Staff Quarters (requested in 1919, 1920, 1921, 1922, 1923 and 1924).....	\$180,000
2. Extension to Sewer, Water and Steam Lines (requested in 1920, 1921, 1922, 1923 and 1924.).....	13,000
3. Addition to Garage (requested in 1920, 1921, 1922, 1923 and 1924) ..	4,200
4. Purchase of Additional Land (requested in 1918, 1919, 1920, 1921, 1922, 1923 and 1924).....	50,000
5. Concrete Pavement in front of Power House (requested in 1920, 1921, 1922, 1923 and 1924).....	10,000
6. Concrete Platform for Coal Storage (requested in 1920, 1921, 1922, 1923 and 1924).....	6,000
7. Cottage for Farm Employees (requested in 1921, 1922, 1923 and 1924).....	30,000
Total.....	\$293,200

1. *Administration Building and Staff Quarters.*—The offices of the institution are now located in an old building purchased by the City of Boston about fifty years ago for use as an almshouse. This is a two and one-half story building constructed of wood throughout, contains numerous exposed electric wires, and has several wooden stairways running from the basement to the attic. This building is located within 50 yards of a large wooden barn containing hay, and is surrounded by other non-fireproof structures, the nearest being the chapel and a building occupied by patients. Its presence in this location is a serious menace, and in case of fire would threaten the loss of the entire East group. The building now houses over fifty employees, thirty of whom are living in the attic. The offices of the hospital should be in a central location. It is very inconvenient for relatives and friends of the patients to come from Walk Hill Street to the present administration building. The hospital has now reached a stage of development where an administration building is urgently needed. We do not propose to demolish the old wooden building now used for office purposes, but suggest removing it to other locations where it can be remodeled and used for housing employees, etc. In erecting an administration building we propose to provide additional accommodations for the staff on the second floor. Attention should be called to the fact that no new construction has ever been provided at the institution as yet for the exclusive use of the medical officers of the hospital.

2. *Extension to Sewer, Water and Steam Lines.*—When a new administration building is erected an extension to the sewer, water and steam lines of the institution will be necessary. Provision should be made for this at as early a moment as possible. When completed, this extension will also provide for several other buildings.

3. *Addition to Garage.*—No garage has ever been built for the hospital. We are using the old West group boiler house, remodeled for this purpose, at the present time. It is, however, not large enough, and additional space is badly needed.

4. *Purchase of Additional Land.*—Attention should be called again to the desirability of acquiring the 150,000 square feet of land belonging to the Forest Hills Cemetery and located south of Canterbury Street, adjoining the West group.

This is the only part of the site bounded by Canterbury Street on the north, Harvard Street on the south, Morton Street on the east, and Walk Hill Street on the west that has not as yet been acquired by the State. The buildings on the land could be used to very good advantage and would facilitate the removal of the barns and other objectionable structures adjoining the administration building in the East group. The desirability of acquiring this land was referred to by the joint special legislative committee on public institutions in their report of March, 1920, as shown in Senate Document No. 450.

5. *Concrete Pavement in Front of Power House.*—There is a granite block pavement in front of the laundry at the present time. This is not laid in cement and will have to be taken up soon. When relaid, this should be extended to the front of the power house, and carried as far as the storehouse. The heavy trucks now delivering coal to the power house render the installation of some kind of a serviceable pavement necessary. The cheapest pavement available will be concrete, at an estimated cost of \$10,000.

6. *Concrete Platform for Coal Storage.*—The recommendations of the consulting engineers representing the Department of Mental Diseases show that we should be able to take care of at least 6,000 tons of coal at one time. At present this is done by spreading the coal over a large space near the power house. This land is low and is frequently overflowed by water from the Canterbury Branch of Stony Brook. A considerable loss would be prevented by storing this coal on a cement platform (20,000 square feet).

7. *Cottage for Farm Employees.*—Attention has been called to the necessity of further provision for the housing of farm employees. The building now used for this purpose in the West group is one which has been in constant use since 1904. It has been remodelled throughout on several occasions and cannot be repaired further to good advantage. The building inspectors of the district police have refused to certify it for occupancy, and it should be replaced at the earliest possible moment.

Respectfully submitted,

JAMES V. MAY, *Superintendent.*

Nov. 30, 1925.

## VALUATION

NOVEMBER 30, 1925

### REAL ESTATE

Land, 233 acres . . . . .	\$609,508 00
Buildings . . . . .	2,695,063 94
	<hr/>
	\$3,304,571 94

### PERSONAL PROPERTY

Travel, Transportation and Office Expenses . . . . .	
Food . . . . .	\$26,461 91
Clothing and Materials . . . . .	28,320 65
Furnishings and Household Supplies . . . . .	168,475 80
Medical and General Care . . . . .	3,414 01
Heat, Light and Power . . . . .	17,571 05
Farm . . . . .	10,559 13
Garage, Stable and Grounds . . . . .	6,519 07
Repairs . . . . .	5,119 01
	<hr/>
	\$266,440 63

### SUMMARY

Real Estate . . . . .	\$3,304,571 94
Personal Property . . . . .	266,440 63
	<hr/>
	\$3,571,012 57

# TREASURER'S REPORT

To the Department of Mental Diseases.

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1925.

## CASH ACCOUNT Receipts

<i>Income</i>			
Board of Patients:			
Private.....	\$28,369.00		
Reimbursing.....	57,313.96		
		\$85,682.96	
Personal Services:			
Reimbursement from Board of Retirement.....		232.37	
Sales:			
Travel, Transportation and Office Expenses.....	\$124.12		
Food.....	538.83		
Clothing and Materials.....	47.97		
Furnishings and Household Supplies.....	65.13		
Medical and General Care.....	24.00		
Heat, Light and Power.....	94.13		
Farm:			
Hay.....	75.00		
Repairs, Ordinary.....	27.56		
Repairs and Renewals.....	40.90		
		1,037.64	
Miscellaneous:			
Interest on bank balances.....	\$546.67		
Rent.....	13.80		
		560.47	
<b>TOTAL INCOME</b> .....			\$87,513.44

## MAINTENANCE

Balance from previous year, brought forward.....	\$3,838.86
Appropriations, current year.....	775,620.00
<b>TOTAL</b> .....	\$779,458.86
Expenses (as analyzed below).....	751,724.52
<b>Balance</b> .....	\$27,734.34

## Analysis of Expenses

Personal Services.....	\$358,058.54
Religious Instruction.....	2,079.98
Travel, Transportation and Office Expenses.....	6,108.09
Food.....	184,200.46
Clothing and Materials.....	29,812.79
Furnishings and Household Supplies.....	45,612.87
Medical and General Care.....	25,355.74
Heat, Light and Power.....	53,184.95
Farm.....	5,998.28
Garage, Stable and Grounds.....	5,999.49
Repairs, Ordinary.....	15,366.58
Repairs and Renewals.....	19,946.75
<b>Total Expenses for Maintenance</b> .....	\$751,724.52

## SPECIAL APPROPRIATIONS

Balance December 1, 1924.....	\$6,027.91
Appropriations for current year.....	18,000.00
<b>Total</b> .....	\$24,027.91
Expended during the year (see statement below).....	\$4,565.19
Reverting to Treasury of Commonwealth.....	42.04
<b>Balance November 30, 1925, carried to next year</b> .....	\$19,420.68

OBJECT	Act or Resolve	Whole Amount	Expended During Fiscal Year	Total Expended to Date	Balance at End of Year
Dining Room, East Group.....	211-1919 629-1920	\$152,000.00	-	\$150,579.32	\$1,420.68
Superintendent's House.....	123-1923	15,000.00	\$206.29	14,999.06	.94*
Additional Fire Protection.....	510-1924	4,400.00	4,358.90	4,358.90	41.10*
Fire Protection, 1925.....	347-1925	18,000.00	-	-	18,000.00
		\$189,400.00	\$4,565.19	\$169,937.28	\$19,462.72

Balance reverting to Treasury of the Commonwealth during year (mark item with *).....	\$42.04*
Balance carried to next year.....	19,420.68

**Total, as above**.....\$19,462.72



TABLE 3. *Movement of Population for the Year Ending September 30, 1925.*

	INSANE			TEMPORARY CARE			TOTAL		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books at beginning of institution year...	1,017	1,416	2,433	5	5	10	1,022	1,421	2,443
Admissions during the year:									
First admissions (including 1 female committed from temporary care of preceding year).....	189	239	428	16	31	47	205	270	475
Readmissions (including 1 male committed from temporary care of preceding year).....	29	55	84	23	17	40	52	72	124
Transferred from other institutions for mental diseases.....	16	18	34	0	0	0	16	18	34
Total received during the year.....	234	312	546	39	48	87	273	360	633
Total under treatment during the year.....	1,251	1,728	2,979	44	53	97	1,295	1,781	3,076
Discharged from books during the year:									
As recovered.....	40	45	85	4	7	11	44	52	96
As improved.....	67	68	135	10	1	11	77	69	146
As unimproved.....	7	25	32	9	22	31	16	47	63
As without psychosis.....	4	6	10	6	8	14	10	14	24
Transferred to other institutions for mental diseases.....	7	9	16	0	0	0	7	9	16
Died during the year.....	117	141	258	2	5	7	119	146	265
Committed from temporary care.....	0	0	0	1	1	2	1	1	2
Total discharged and died.....	242	294	536	32	44	76	274	338	612
Patients remaining on books at end of institution year.....	1,009	1,434	2,443	12	9	21	1,021	1,443	2,464

TABLE 4. *Nativity of First Admissions and of Parents of First Admissions for the Year Ending September 30, 1925.*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States.....	105	101	206	38	33	30	38	41	36
Africa.....	—	—	—	—	—	—	—	—	—
Asia <sup>1</sup> .....	—	—	—	—	—	—	—	—	—
Australia.....	—	—	—	—	—	—	—	—	—
Austria.....	—	—	—	—	—	—	1	0	0
Belgium.....	—	—	—	—	—	—	—	—	—
Canada <sup>2</sup> .....	15	26	41	9	14	8	15	18	13
Central America.....	—	—	—	—	—	—	—	—	—
China.....	1	0	1	1	1	1	—	—	—
Czecho-Slovakia.....	—	—	—	—	—	—	—	—	—
Cuba.....	—	—	—	—	—	—	—	—	—
Denmark.....	—	—	—	—	—	—	—	—	—
England.....	7	8	15	12	10	9	11	9	6
Europe <sup>1</sup> .....	—	—	—	—	—	—	—	—	—
Finland.....	—	—	—	—	—	—	—	—	—
France.....	0	1	1	1	1	0	1	2	0
Germany.....	5	0	5	5	3	3	4	3	3
Greece.....	1	0	1	1	1	1	—	—	—
Holland.....	1	1	2	1	1	1	—	—	—
Hungary.....	—	—	—	—	—	—	—	—	—
India.....	—	—	—	—	—	—	—	—	—
Ireland.....	30	64	94	63	63	62	82	80	75
Italy.....	9	12	21	15	15	15	16	16	16
Japan.....	—	—	—	—	—	—	—	—	—
Jugo-Slavia.....	—	—	—	—	—	—	—	—	—
Mexico.....	—	—	—	—	—	—	—	—	—
Norway.....	—	—	—	—	—	—	—	—	—
Philippine Islands.....	—	—	—	—	—	—	—	—	—
Poland.....	2	1	3	1	1	1	2	2	2
Porto Rico.....	—	—	—	—	—	—	—	—	—
Portugal.....	2	0	2	1	1	1	—	—	—
Roumania.....	—	—	—	—	—	—	—	—	—
Russia.....	8	15	23	13	13	13	19	18	18
Scotland.....	1	1	2	2	4	2	2	2	2
South America.....	—	—	—	—	—	—	—	—	—
Spain.....	—	—	—	—	—	—	—	—	—
Sweden.....	2	6	8	3	3	3	4	4	4
Switzerland.....	0	1	1	—	—	—	0	1	0
Turkey in Asia.....	0	1	1	—	—	—	1	1	1
Turkey in Europe.....	—	—	—	—	—	—	—	—	—
Wales.....	—	—	—	—	—	—	—	—	—
West Indies <sup>3</sup> .....	0	1	1	—	—	—	1	0	0
Other countries.....	—	—	—	—	—	—	—	—	—
Unascertained.....	—	—	—	23	25	21	42	42	39
Total.....	189	239	428	189	189	171	239	239	216

<sup>1</sup> Not otherwise specified.<sup>2</sup> Includes Newfoundland.<sup>3</sup> Except Cuba and Porto Rico.





TABLE 5. *Citizenship of First Admissions for the Year Ending September 30, 1925.*

	M.	F.	T.
Citizens by birth.....	105	101	206
Citizens by naturalization.....	46	31	77
Aliens.....	21	59	80
Citizenship unascertained.....	17	48	65
Total.....	189	239	428

TABLE 6. *Psychoses of First Admissions for the Year Ending September 30, 1925.*

PSYCHOSES	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses.....				4	0	4
2. Senile psychoses, total.....				18	63	81
Simple deterioration.....	11	30	41			
Depressed and agitated types.....	5	18	23			
Delirious and confused types.....	1	0	1			
Paranoid types.....	1	14	15			
Others.....	0	1	1			
3. Psychoses with cerebral arteriosclerosis.....				45		90
4. General paralysis.....				21	6	27
5. Psychoses with cerebral syphilis.....				1	2	3
6. Psychoses with Huntington's chorea.....				0	0	0
7. Psychoses with brain tumor.....				0	1	1
8. Psychoses with other brain or nervous diseases, total.....				14	3	17
Cerebral embolism.....	2	0	2			
Paralysis agitans.....	2	1	3			
Meningitis, tubercular or other forms.....	1	0	1			
Multiple sclerosis.....	0	0	0			
Tabes dorsalis.....	2	0	2			
Acute chorea.....	0	1	1			
Other diseases.....	7	1	8			
9. Alcoholic psychoses, total.....				19	4	23
Delirium tremens.....	0	0	0			
Korsakow's psychosis.....	3	1	4			
Acute hallucinosis.....	4	1	5			
Other types, acute or chronic.....	12	2	14			
10. Psychoses due to drugs and other exogenous toxins, total.....				0	0	0
11. Psychoses with pellagra.....				0	0	0
12. Psychoses with other somatic diseases, total.....				4	3	7
Cardio-renal diseases.....	3	2	5			
Diseases of the ductless glands.....	0	1	1			
Other diseases or conditions.....	1	0	1			
13. Manic-depressive psychoses, total.....				22	42	64
Manic type.....	6	7	13			
Depressive type.....	12	24	36			
Other types.....	4	11	15			
14. Involution melancholia.....				2	6	8
15. Dementia praecox, total.....				18	20	38
Paranoid type.....	7	8	15			
Catatonic type.....	1	3	4			
Hebephrenic type.....	6	4	10			
Other types.....	4	5	9			
16. Paranoia and paranoid conditions.....				2	17	19
17. Epileptic psychoses.....				1	0	1
18. Psychoneuroses and neuroses, total.....				1	2	3
Hysterical type.....	0	1	1			
Neurasthenic type.....	1	1	2			
19. Psychoses with psychopathic personality.....				2	3	5
20. Psychoses with mental deficiency.....				7	8	15
21. Undiagnosed psychoses.....				4	13	17
22. Without psychosis, total.....				4	1	5
Psychopathic personality without psychosis.....	2	1	3			
Mental deficiency without psychosis.....	2	0	2			
Total.....				189	239	428

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925.*

RACE	Total			Traumatic			Senile			With cerebral arterio-sclerosis			General paralysis			With cerebral syphilis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . .	6	10	16	-	-	-	0	1	1	0	4	4	2	0	2	-	-	-
American Indian . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Armenian . . . . .	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bulgarian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chinese . . . . .	1	0	1	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-
Cuban . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish . . . .	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East Indian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English . . . . .	10	28	38	-	-	-	2	4	6	3	6	9	2	2	4	-	-	-
Finnish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
French . . . . .	1	2	3	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-
German . . . . .	5	3	8	-	-	-	-	-	-	1	1	2	2	0	2	-	-	-
Greek . . . . .	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew . . . . .	14	21	35	1	0	1	0	5	5	2	2	4	3	0	3	0	1	1
Irish . . . . .	66	96	162	2	0	2	8	23	31	15	17	32	3	3	6	0	1	1
Italian <sup>1</sup> . . . . .	15	16	31	-	-	-	1	0	1	1	3	4	4	0	4	-	-	-
Japanese . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuanian . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magyar . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mexican . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific Islander . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese . . . . .	1	0	1	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-
Roumanian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup> . . . . .	3	7	10	-	-	-	1	3	4	-	-	-	0	1	1	-	-	-
Scotch . . . . .	2	5	7	-	-	-	0	1	1	0	1	1	-	-	-	-	-	-
Slavonic <sup>3</sup> . . . . .	2	0	2	-	-	-	-	-	-	2	0	2	-	-	-	-	-	-
Spanish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish-American . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Welsh . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Indian <sup>4</sup> . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other specific races . . . .	57	16	73	1	0	1	6	9	15	17	1	18	4	0	4	-	-	-
Mixed . . . . .	3	33	36	-	-	-	0	17	17	1	10	11	1	0	1	1	0	1
Race unascertained . . . .	3	33	36	-	-	-	0	17	17	1	10	11	1	0	1	1	0	1
TOTAL . . . . .	189	239	428	4	0	4	18	63	81	45	45	90	21	6	27	1	2	3

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup> Except Cuban.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925 — Continued.*

RACE	With Huntington's chorea			With brain tumor			With other brain or nervous diseases			Alcoholic			Due to drugs and other exogenous toxins			With pellagra		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . .	-	-	-	-	-	-	1	0	1	1	0	1	-	-	-	-	-	-
American Indian . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Armenian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bulgarian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chinese . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cuban . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East Indian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English . . . . .	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-
Finnish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
French . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German . . . . .	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-
Greek . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew . . . . .	-	-	-	-	-	-	2	0	2	-	-	-	-	-	-	-	-	-
Irish . . . . .	-	-	-	0	1	1	2	0	2	13	2	15	-	-	-	-	-	-
Italian <sup>1</sup> . . . . .	-	-	-	-	-	-	2	0	2	-	-	-	-	-	-	-	-	-
Japanese . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuanian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magyar . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mexican . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific Islander . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roumanian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup> . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scotch . . . . .	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-
Slavonic <sup>3</sup> . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish-American . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Welsh . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Indian <sup>4</sup> . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other specific races . . . .	-	-	-	-	-	-	5	0	5	4	1	5	-	-	-	-	-	-
Mixed . . . . .	-	-	-	-	-	-	0	2	2	0	1	1	-	-	-	-	-	-
Race unascertained . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL . . . . .	0	0	0	0	1	1	14	3	17	19	4	23	0	0	0	0	0	0

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup> Except Cuban.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925 — Continued.*

RACE	With other somatic diseases			Manic-depressive			Involution melan-cholia			Dementia praecox			Paranoia and paranoid conditions			Epileptic psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . .	-	-	-	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-
American Indian . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Armenian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1	-	-	-
Bulgarian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chinese . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cuban . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish . . . .	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-
East Indian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English . . . . .	1	0	1	1	5	6	-	-	-	0	4	4	0	4	4	-	-	-
Finnish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
French . . . . .	0	1	1	-	-	-	-	-	-	-	-	-	0	1	1	-	-	-
German . . . . .	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
Greek . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew . . . . .	-	-	-	3	4	7	0	1	1	1	3	4	-	-	-	-	-	-
Irish . . . . .	1	2	3	5	14	19	0	5	5	9	9	18	2	9	11	1	0	1
Italian <sup>1</sup> . . . . .	-	-	-	2	7	9	-	-	-	2	3	5	-	-	-	-	-	-
Japanese . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuanian . . . . .	-	-	-	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Magyar . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mexican . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific Islander . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roumanian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup> . . . . .	-	-	-	-	-	-	-	-	-	1	0	1	0	1	1	-	-	-
Scotch . . . . .	1	0	1	0	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup> . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish-American . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Welsh . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Indian <sup>4</sup> . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other specific races . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed . . . . .	1	0	1	7	2	9	2	0	2	5	1	6	-	-	-	-	-	-
Race unascertained . . . .	-	-	-	0	2	2	-	-	-	-	-	-	0	1	1	-	-	-
TOTAL . . . . .	4	3	7	22	42	64	2	6	8	18	20	38	2	17	19	1	0	1

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup> Except Cuban.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925 — Concluded.*

RACE	Psycho-neuroses and neuroses			With psycho-pathic personality			With mental deficiency			Un-diagnosed psychoses			Without psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black).....	-	-	-	-	-	-	-	-	-	0	2	2	-	-	-
American Indian.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Armenian.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bulgarian.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chinese.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cuban.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East Indian.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English.....	-	-	-	0	1	1	-	-	-	-	-	-	0	1	1
Finnish.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
French.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German.....	-	-	-	-	-	-	0	1	1	-	-	-	-	-	-
Greek.....	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-
Hebrew.....	0	1	1	-	-	-	1	3	4	0	1	1	1	0	1
Irish.....	1	1	2	0	1	1	2	2	4	1	6	7	1	0	1
Italian <sup>1</sup> .....	-	-	-	1	0	1	1	1	2	1	2	3	-	-	-
Japanese.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuanian.....	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-
Magyar.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mexican.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific Islander.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roumanian.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup> .....	-	-	-	0	1	1	-	-	-	1	1	2	-	-	-
Scotch.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup> .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish-American.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkish.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Welsh.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Indian <sup>4</sup> .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other specific races.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed.....	-	-	-	-	-	-	3	1	4	0	1	1	2	0	2
Race unascertained.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL.....	1	2	3	2	3	5	7	8	15	4	13	17	4	1	5

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup> Except Cuban.

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925.*

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years			25-29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile.....	18	63	81	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis.....	45	45	90	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis.....	21	6	27	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis.....	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases.....	14	3	17	1	0	1	-	-	-	-	-	-	-	-	-
9. Alcoholic.....	19	4	23	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases.....	4	3	7	-	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive.....	22	42	64	-	-	-	2	2	4	3	5	8	3	7	10
14. Involution melancholia.....	2	6	8	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox.....	18	20	38	-	-	-	0	1	1	6	4	10	3	2	5
16. Paranoia or paranoid conditions.....	2	17	19	-	-	-	-	-	-	-	-	-	1	0	1
17. Epileptic psychoses.....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses.....	1	2	3	-	-	-	0	1	1	-	-	-	-	-	-
19. With psychopathic personality.....	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency.....	7	8	15	-	-	-	1	0	1	3	2	5	3	1	4
21. Undiagnosed psychoses.....	4	13	17	0	1	1	-	-	-	1	2	3	-	-	-
22. Without psychosis.....	4	1	5	-	-	-	1	0	1	1	0	1	-	-	-
TOTAL.....	189	239	428	1	1	2	4	4	8	14	13	27	10	10	20

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925 — Continued.*

PSYCHOSES	30-34 years			35-39 years			40-44 years			45-49 years			50-54 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	1	0	1	-	-	-	-	-	-	1	0	1	2	0	2
2. Senile.....	-	-	-	-	-	-	-	-	-	0	1	1	0	1	1
3. With cerebral arteriosclerosis.....	-	-	-	0	1	1	1	0	1	1	2	3	2	2	4
4. General paralysis.....	3	0	3	2	1	3	2	1	3	3	1	4	4	1	5
5. With cerebral syphilis.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor.....	-	-	-	-	-	-	-	-	-	0	1	1	-	-	-
8. With other brain or nervous diseases.....	1	0	1	-	-	-	2	0	2	3	0	3	-	-	-
9. Alcoholic.....	1	1	2	2	0	2	3	1	4	1	0	1	6	2	8
10. Due to drugs and other exogenous toxins.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases.....	1	0	1	-	-	-	-	-	-	0	1	1	0	1	1
13. Manic-depressive.....	3	6	9	2	6	8	1	2	3	4	5	9	0	7	7
14. Involution melancholia.....	-	-	-	-	-	-	-	-	-	0	4	4	0	2	2
15. Dementia praecox.....	5	4	9	4	6	10	0	1	1	0	2	2	-	-	-
16. Paranoia or paranoid conditions.....	-	-	-	0	2	2	0	4	4	1	2	3	0	6	6
17. Epileptic psychoses.....	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses.....	-	-	-	0	1	1	-	-	-	-	-	-	-	-	-
19. With psychopathic personality.....	-	-	-	-	-	-	1	1	2	1	0	1	0	1	1
20. With mental deficiency.....	0	2	2	0	1	1	0	1	1	0	1	1	-	-	-
21. Undiagnosed psychoses.....	1	0	1	0	1	1	0	1	1	1	3	4	0	2	2
22. Without psychosis.....	-	-	-	-	-	-	2	0	2	0	1	1	-	-	-
TOTAL.....	16	13	29	10	19	29	13	12	25	16	24	40	14	25	39

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925 — Concluded.*

PSYCHOSES	55-59 years			60-64 years			65-69 years			70 years and over			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile.....	1	0	1	2	13	15	3	11	14	12	37	49	-	-	-
3. With cerebral arteriosclerosis.....	5	8	13	7	6	13	10	6	16	19	20	39	-	-	-
4. General paralysis.....	1	1	2	4	0	4	1	0	1	1	1	2	-	-	-
5. With cerebral syphilis.....	1	0	1	0	1	1	-	-	-	0	1	1	-	-	-
6. With Huntington's chorea.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases.....	3	1	4	2	0	2	1	1	2	1	1	2	-	-	-
9. Alcoholic.....	3	0	3	3	0	3	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases.....	1	0	1	1	0	1	0	1	1	1	0	1	-	-	-
13. Manic-depressive.....	3	1	4	1	0	1	0	1	1	-	-	-	-	-	-
14. Involution melancholia.....	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia or paranoid conditions.....	0	1	1	0	2	2	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses.....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality.....	-	-	-	-	-	-	0	1	1	-	-	-	-	-	-
20. With mental deficiency.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses.....	1	1	2	0	2	2	-	-	-	-	-	-	-	-	-
22. Without psychosis.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL.....	22	13	35	20	24	44	15	21	36	34	60	94	0	0	0



TABLE 9. *Degree of Education of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925.*

PSYCHOSES	Total			Illiterate			Reads and Writes <sup>1</sup>			Common School			High School			College			Unascertained			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
1. Traumatic.....	4	0	4	1	1	2	2	8	10	3	0	3	1	0	1	1	0	1	1	20	21	—
2. Senile.....	18	63	81	9	9	10	10	5	15	24	21	47	4	4	8	2	2	0	2	6	8	—
3. With cerebral arteriosclerosis.....	45	45	90	2	0	2	3	0	3	13	5	18	2	0	2	—	—	—	—	1	1	2
4. General paralysis.....	21	6	27	2	0	2	0	1	1	1	1	2	—	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis.....	1	2	3	0	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea.....	0	0	0	—	—	—	—	—	—	—	0	1	1	—	—	—	—	—	—	—	—	—
7. With brain tumor.....	14	3	17	1	1	2	1	0	3	14	3	17	1	0	1	1	0	1	1	0	1	—
8. With other brain or nervous diseases.....	19	4	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic.....	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins.....	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra.....	4	3	7	—	—	—	—	—	—	—	2	5	—	—	—	—	—	—	—	0	1	1
12. With other somatic diseases.....	22	42	64	1	7	8	0	4	11	17	4	21	3	3	6	3	0	1	1	1	2	—
13. Manic-depressive.....	2	6	8	0	1	1	0	1	1	14	2	4	6	—	—	—	—	—	—	—	—	—
14. Involution melancholia.....	18	20	38	0	1	1	0	1	1	14	24	28	3	4	7	1	0	1	—	—	—	—
15. Dementia praecox.....	2	17	19	0	2	2	0	2	2	12	14	26	0	1	1	—	—	—	—	—	—	—
16. Paranoia or paranoid conditions.....	1	0	1	0	1	1	—	—	—	—	—	—	1	0	1	—	—	—	—	—	—	—
17. Epileptic psychoses.....	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses.....	2	3	5	—	—	—	—	—	—	—	1	2	3	—	—	—	—	—	—	—	—	—
19. With psychopathic personality.....	7	8	15	1	1	2	1	0	1	5	10	15	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency.....	2	7	9	1	2	3	1	1	2	7	8	15	—	—	—	—	—	—	—	0	3	—
21. Undiagnosed psychoses.....	4	13	17	1	0	1	1	0	1	1	7	8	1	1	2	—	—	—	—	0	3	—
22. Without psychosis.....	4	1	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL.....	189	239	428	9	34	43	23	24	47	127	132	259	17	15	32	8	1	9	5	33	38	—

<sup>1</sup> Includes those who did not complete fourth grade in school.

TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925.*

PSYCHOSES	Total			Urban			Rural			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	4	0	4	4	0	4	-	-	-	-	-	-
2. Senile.....	18	63	81	18	63	81	-	-	-	-	-	-
3. With cerebral arteriosclerosis.....	45	45	90	45	45	90	-	-	-	-	-	-
4. General paralysis.....	21	6	27	21	6	27	-	-	-	-	-	-
5. With cerebral syphilis.....	1	2	3	1	2	3	-	-	-	-	-	-
6. With Huntington's chorea.....	0	0	0	0	0	0	-	-	-	-	-	-
7. With brain tumor.....	0	1	1	0	1	1	-	-	-	-	-	-
8. With other brain or nervous diseases.....	14	3	17	14	3	17	-	-	-	-	-	-
9. Alcoholic.....	19	4	23	19	4	23	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins.....	0	0	0	0	0	0	-	-	-	-	-	-
11. With pellagra.....	0	0	0	0	0	0	-	-	-	-	-	-
12. With other somatic diseases.....	4	3	7	4	3	7	-	-	-	-	-	-
13. Manic-depressive.....	22	42	64	22	42	64	-	-	-	-	-	-
14. Involution melancholia.....	2	6	8	2	6	8	-	-	-	-	-	-
15. Dementia praecox.....	18	20	38	18	20	38	-	-	-	-	-	-
16. Paranoia or paranoid conditions.....	2	17	19	2	17	19	-	-	-	-	-	-
17. Epileptic psychoses.....	1	0	1	1	0	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses.....	1	2	3	1	2	3	-	-	-	-	-	-
19. With psychopathic personality.....	2	3	5	2	3	5	-	-	-	-	-	-
20. With mental deficiency.....	7	8	15	7	8	15	-	-	-	-	-	-
21. Undiagnosed psychoses.....	4	13	17	4	13	17	-	-	-	-	-	-
22. Without psychosis.....	4	1	5	4	1	5	-	-	-	-	-	-
TOTAL.....	189	239	428	189	239	428	-	-	-	-	-	-

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925.*

PSYCHOSES	Total			Dependent			Marginal			Comfortable			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	4	0	4	-	-	-	4	0	4	-	-	-	-	-	-
2. Senile.....	18	63	81	13	31	44	4	11	15	0	2	2	1	19	20
3. With cerebral arteriosclerosis.....	45	45	90	30	17	47	14	15	29	1	0	1	0	13	13
4. General paralysis.....	21	6	27	4	2	6	17	1	18	-	-	-	0	3	3
5. With cerebral syphilis.....	1	2	3	1	1	2	-	-	-	-	-	-	0	1	1
6. With Huntington's chorea.....	0	0	0	-	-	-	-	-	-	-	-	-	0	1	1
7. With brain tumor.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases.....	14	3	17	11	1	12	3	2	5	-	-	-	-	-	-
9. Alcoholic.....	19	4	23	4	0	4	15	2	17	-	-	-	0	2	2
10. Due to drugs and other exogenous toxins.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases.....	4	3	7	1	1	2	2	1	3	1	0	1	0	1	1
13. Manic-depressive.....	22	42	64	3	9	12	18	26	44	1	3	4	0	4	4
14. Involution melancholia.....	2	6	8	1	0	1	0	4	4	1	0	1	0	2	2
15. Dementia praecox.....	18	20	38	2	4	6	16	13	29	0	2	2	0	1	1
16. Paranoia or paranoid conditions.....	2	17	19	0	5	5	2	11	13	0	1	1	-	-	-
17. Epileptic psychoses.....	1	0	1	-	-	-	1	0	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses.....	1	2	3	1	0	1	0	2	2	-	-	-	-	-	-
19. With psychopathic personality.....	2	3	5	0	1	1	2	2	4	-	-	-	-	-	-
20. With mental deficiency.....	7	8	15	0	3	3	7	5	12	-	-	-	-	-	-
21. Undiagnosed psychoses.....	4	13	17	2	3	5	2	5	7	-	-	-	0	5	5
22. Without psychosis.....	4	1	5	1	0	1	3	1	4	-	-	-	-	-	-
TOTAL.....	189	239	428	74	78	152	110	101	211	4	8	12	1	52	53

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925.*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	4	0	4	-	-	-	3	0	3	1	0	1	-	-	-
2. Senile.....	18	63	81	4	31	35	3	19	22	6	3	9	5	10	15
3. With cerebral arteriosclerosis..	45	45	90	5	17	22	17	13	30	17	7	24	6	8	14
4. General paralysis.....	21	6	27	1	2	3	12	0	12	8	2	10	0	2	2
5. With cerebral syphilis.....	1	2	3	-	-	-	1	1	2	0	1	1	-	-	-
6. With Huntington's chorea.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor.....	0	1	1	0	1	1	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases.....	14	3	17	5	1	6	5	1	6	3	1	4	1	0	1
9. Alcoholic.....	19	4	23	-	-	-	1	0	1	18	4	22	-	-	-
10. Due to drugs and other exogenous toxins.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases..	4	3	7	-	-	-	4	3	7	-	-	-	-	-	-
13. Manic-depressive.....	22	42	64	14	18	32	2	19	21	6	4	10	0	1	1
14. Involution melancholia.....	2	6	8	2	5	7	0	1	1	-	-	-	-	-	-
15. Dementia praecox.....	18	20	38	11	9	20	3	10	13	4	0	4	0	1	1
16. Paranoia or paranoid conditions.....	2	17	19	1	6	7	1	10	11	-	-	-	0	1	1
17. Epileptic psychoses.....	1	0	1	-	-	-	-	-	-	1	0	1	-	-	-
18. Psychoneuroses and neuroses..	1	2	3	0	2	2	1	0	1	-	-	-	-	-	-
19. With psychopathic personality	2	3	5	0	1	1	1	2	3	1	0	1	-	-	-
20. With mental deficiency.....	7	8	15	6	6	12	0	2	2	-	-	-	1	0	1
21. Undiagnosed psychoses.....	4	13	17	2	4	6	1	4	5	1	1	2	0	4	4
22. Without psychosis.....	4	1	5	3	0	3	0	1	1	1	0	1	-	-	-
TOTAL.....	189	239	428	54	103	157	55	86	141	67	23	90	13	27	40

TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September, 30, 1925.*

Psychoses	Total			Single			Married			Widowed			Separated			Divorced			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	4	0	4	1	0	1	3	0	3	5	35	40	—	—	—	—	—	—	—	—	—
2. Senile.....	18	63	81	4	18	22	9	9	18	14	21	35	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis.....	45	45	90	9	10	19	20	14	34	12	3	15	—	—	—	—	—	—	—	—	—
4. General paralysis.....	21	6	27	2	0	2	17	3	20	0	3	3	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis.....	1	2	3	—	—	—	1	1	2	0	1	1	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea.....	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor.....	0	0	1	—	—	—	0	1	1	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.....	14	3	17	7	0	7	5	1	6	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic.....	19	4	23	6	0	6	11	3	14	1	1	2	1	0	1	2	0	2	—	—	—
10. Due to drugs and other exogenous toxins.....	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra.....	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases.....	4	3	7	1	1	2	3	2	5	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive.....	22	42	64	11	14	25	10	24	34	1	4	5	—	—	—	—	—	—	—	—	—
14. Involution melancholia.....	2	6	8	2	4	6	0	1	1	0	1	1	—	—	—	—	—	—	—	—	—
15. Dementia praecox.....	18	20	38	15	13	28	3	4	7	0	1	1	1	0	1	1	0	1	—	—	—
16. Paranoia or paranoid conditions.....	2	17	19	1	6	7	1	0	1	0	2	2	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses.....	1	0	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Pseudoneuroses and neuroses.....	1	2	3	1	2	3	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality.....	2	3	5	1	2	3	0	3	3	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency.....	7	8	15	7	5	12	0	7	9	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses.....	4	3	7	2	6	8	2	0	1	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis.....	4	1	5	3	1	4	1	0	1	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL.....	189	239	428	73	82	155	88	83	171	23	71	94	2	1	3	3	2	5	0	0	0

TABLE 14. *Psychoses of Readmissions for the Year Ending September 30, 1925.*

PSYCHOSES	M.	F.	T.
1. Traumatic psychoses.....	0	1	1
2. Senile psychoses.....	2	2	4
3. Psychoses with cerebral arteriosclerosis.....	0	2	2
4. General paralysis.....	0	3	3
5. Psychoses with cerebral syphilis.....	2	0	2
6. Psychoses with Huntington's chorea.....	0	0	0
7. Psychoses with brain tumor.....	0	0	0
8. Psychoses with other brain or nervous diseases.....	0	0	0
9. Alcoholic psychoses.....	4	1	5
10. Psychoses due to drugs and other exogenous toxins.....	0	0	0
11. Psychoses with pellagra.....	0	0	0
12. Psychoses with other somatic diseases.....	0	0	0
13. Manic-depressive psychoses.....	6	24	30
14. Involution melancholia.....	0	1	1
15. Dementia praecox.....	12	11	23
16. Paranoia and paranoid conditions.....	1	4	5
17. Epileptic psychoses.....	1	0	1
18. Psychoneuroses and neuroses.....	0	0	0
19. Psychoses with psychopathic personality.....	1	1	2
20. Psychoses with mental deficiency.....	0	3	3
21. Undiagnosed psychoses.....	0	2	2
22. Without psychosis.....	0	0	0
TOTAL.....	29	55	84

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge for the Year Ending September 30, 1925.*

PSYCHOSES	Total			Recovered			Improved			Unimproved			Without Psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile.....	2	2	4	-	-	-	2	1	3	0	1	1	-	-	-
3. With cerebral arteriosclerosis.....	5	12	17	-	-	-	5	5	10	0	7	7	-	-	-
4. General paralysis.....	4	1	5	-	-	-	4	0	4	0	1	1	-	-	-
5. With cerebral syphilis.....	4	0	4	-	-	-	4	0	4	-	-	-	-	-	-
6. With Huntington's chorea.....	0	1	1	-	-	-	-	-	-	0	1	1	-	-	-
7. With brain tumor.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases.....	3	1	4	-	-	-	2	0	2	1	1	2	-	-	-
9. Alcoholic.....	27	11	38	14	5	19	12	6	18	1	0	1	-	-	-
10. Due to drugs and other exogenous toxins.....	1	1	2	1	0	1	0	1	1	-	-	-	-	-	-
11. With pellagra.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases.....	1	6	7	0	3	3	1	3	4	-	-	-	-	-	-
13. Manic-depressive.....	23	58	81	22	34	56	1	22	23	0	2	2	-	-	-
14. Involution melancholia.....	2	3	5	0	1	1	1	2	3	1	0	1	-	-	-
15. Dementia praecox.....	27	15	42	-	-	-	24	12	36	3	3	6	-	-	-
16. Paranoia or paranoid conditions.....	4	11	15	-	-	-	4	6	10	0	5	5	-	-	-
17. Epileptic psychoses.....	2	1	3	-	-	-	1	0	1	1	1	2	-	-	-
18. Psychoneuroses and neuroses.....	1	1	2	1	0	1	0	1	1	-	-	-	-	-	-
19. With psychopathic personality.....	1	2	3	0	1	1	1	1	2	-	-	-	-	-	-
20. With mental deficiency.....	7	7	14	2	0	2	5	5	10	0	2	2	-	-	-
21. Undiagnosed psychoses.....	0	5	5	0	1	1	0	3	3	0	1	1	-	-	-
22. Without psychosis.....	4	6	10	-	-	-	-	-	-	-	-	-	4	6	10
TOTAL.....	118	144	262	40	45	85	67	68	135	7	25	32	4	6	10

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925.

CAUSES OF DEATH	Total			Senile			With cerebral arterio-sclerosis			General paralysis			Alcoholic			Manic-depressive			Involution melancholia		
	Total			Senile			With cerebral arterio-sclerosis			General paralysis			Alcoholic			Manic-depressive			Involution melancholia		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>General Diseases</i>																					
Septicæmia.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis of lungs.....	11	7	18	1	0	1	-	-	-	-	-	-	-	0	1	2	0	2	0	2	2
Other forms of tuberculosis.....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cancer.....	4	3	7	1	3	4	1	0	1	-	-	-	-	-	-	1	0	1	-	-	-
Other general diseases.....	0	0	1	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1	-	-	-
<i>Nervous System</i>																					
Diseases of spinal cord.....	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Apoplexy (cerebral hemorrhage).....	4	6	10	-	-	-	4	3	7	0	1	1	-	-	-	-	-	-	-	-	-
General paralysis of insane.....	13	5	18	-	-	-	-	-	-	13	5	18	-	-	-	-	-	-	-	-	-
Exhaustion from other mental diseases.....	0	3	3	0	1	1	-	-	-	-	-	-	-	-	-	0	1	1	-	-	-
Brain tumor.....	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Circulatory System</i>																					
Endocarditis and myocarditis.....	28	22	50	5	11	16	12	7	19	-	-	-	1	0	1	1	2	3	2	0	2
Other diseases of the heart.....	2	1	3	-	-	-	1	0	1	-	-	-	-	-	-	1	0	1	-	-	-
Arteriosclerosis.....	14	17	31	2	5	7	11	8	19	-	-	-	-	-	-	0	1	1	-	-	-
Other diseases of the arteries.....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-
Other diseases of circulatory system.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Respiratory System</i>																					
Bronchitis.....	0	4	4	3	18	21	0	1	20	8	6	14	1	2	3	1	0	1	-	-	-
Bronchopneumonia.....	27	45	72	3	18	21	11	9	20	1	0	1	-	-	-	0	1	-	1	0	1
Lobar pneumonia.....	4	8	12	0	1	1	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of the respiratory system.....	0	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Digestive System</i>																					
Other diseases of the stomach (cancer excepted).....	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diarrhea and enteritis.....	3	3	6	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Appendicitis and typhilitis.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of intestines.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of digestive system (cancer and tuberculosis excepted).....	0	1	1	-	-	-	-	-	-	-	-	-	0	1	1	-	-	-	-	-	-
<i>Genito-Urinary System</i>																					
Chronic nephritis.....	1	1	2	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
Diseases of bladder.....	0	2	2	-	-	-	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Skin</i>																					
Gangrene.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1	-	-	-
Other diseases of the skin.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of Bones and Locomotor System (tuberculosis and rheumatism excepted)</i>																					
Violence	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accidental traumatism.....	0	1	1	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other external violence.....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL.....	117	141	258	13	43	56	43	31	74	22	12	34	3	3	6	7	7	14	3	3	6

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1925 — Concluded

CAUSES OF DEATH	Dementia praecox			Paranoia or paranoid conditions			Epileptic psychoses			Psycho-neuroses and neuroses			With psychopathic personality			With mental deficiency			All other psychoses <sup>1</sup>		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>General Diseases</i>																					
Septicæmia.....	0	1	1																		
Tuberculosis of lungs.....	6	4	10																		
Other forms of tuberculosis.....	1	0	1																		
Cancer.....	1	0	1																		
Other general diseases.....																					
<i>Nervous System</i>																					
Diseases of spinal cord.....																					
Apoplexy (cerebral hemorrhage).....					0	1															
General paralysis of insane.....																					
Exhaustion from other mental diseases.....	0	1	1																		
Brain tumor.....																					
<i>Circulatory System</i>																					
Endocarditis and myocarditis.....	0	1	1		2	0															
Other diseases of the heart.....					0	1															
Arteriosclerosis.....	0	1	1		0	1															
Other diseases of the arteries.....					0	1															
Other diseases of circulatory system.....																					
<i>Respiratory System</i>																					
Bronchitis.....																					
Bronchopneumonia.....	0	3	3		0	2															
Lober pneumonia.....	2	4	6		0	1															
Other diseases of the respiratory system.....	0	1	1		0	1															
<i>Digestive System</i>																					
Other diseases of the stomach (cancer excepted).....	0	1	1																		
Diarrhea and enteritis.....																					
Appendicitis and typhlitis.....	0	1	1																		
Other diseases of intestines.....	0	1	1																		
Other diseases of digestive system (cancer and tuberculosis excepted).....																					
<i>Genito-Urinary System</i>																					
Chronic nephritis.....																					
Diseases of bladder.....																					
<i>Diseases of the Skin</i>																					
Gangrene.....																					
Other diseases of the skin.....																					
<i>Diseases of Bones and Locomotor System (tuberculosis and rheumatism excepted)</i>																					
Violence																					
Accidental traumatism.....																					
Other external violence.....																					
TOTAL.....	10	19	29	2	8	10	0	0	0	0	0	0	0	0	0	2	2	4	12	13	25

<sup>1</sup> Includes group 22 "without psychosis."

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses,  
for the Year Ending September 30, 1925.

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years			25-29 years			30-34 years			35-39 years			40-44 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile.....	13	43	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis.....	43	31	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis.....	22	12	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis.....	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor.....	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases.....	6	5	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic.....	3	3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases.....	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive.....	7	7	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14. Involution melancholia.....	3	3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox.....	10	19	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia or paranoid conditions.....	2	8	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality.....	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency.....	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses.....	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL.....</b>	<b>117</b>	<b>141</b>	<b>258</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>7</b>	<b>3</b>	<b>10</b>	<b>2</b>	<b>9</b>	<b>11</b>	<b>9</b>	<b>5</b>	<b>14</b>



TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses,  
for the Year Ending September 30, 1925—Concluded.

PSYCHOSES	45-49 years			50-54 years			55-59 years			60-64 years			65-69 years			70 years and over			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.	0	1	1	—	—	—	0	—	—	—	0	—	1	4	—	1	—	—	—	—	—
2. Senile.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis.	1	2	3	2	1	3	5	3	8	—	9	4	1	5	1	9	0	1	—	—	—
4. General paralysis.	3	2	3	3	0	3	4	3	7	—	1	6	4	13	17	17	15	32	—	—	—
5. With cerebral syphilis.	1	0	1	—	—	—	0	—	—	—	1	—	2	2	—	—	—	—	—	—	—
6. With Huntington's chorea.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor.	0	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.	1	0	1	—	—	—	1	2	3	—	0	1	1	0	1	0	1	1	—	—	—
9. Alcoholic.	—	—	—	—	—	—	—	—	—	—	1	0	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases.	1	1	2	0	1	1	3	1	4	—	2	0	—	2	1	1	1	2	—	—	—
13. Manic-depressive.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14. Involution melancholia.	0	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox.	1	1	2	1	1	2	0	2	3	—	1	1	—	—	—	0	1	1	0	1	1
16. Paranoia or paranoid conditions.	—	—	—	—	—	—	—	—	—	—	0	1	—	2	2	2	5	7	—	—	—
17. Epileptic psychoses.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses.	0	1	1	—	—	—	—	—	—	—	0	0	—	—	—	—	—	—	—	—	—
22. Without psychosis.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL.	8	12	20	6	3	9	16	15	31	16	18	34	16	11	27	32	61	93	0	1	1

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses, for the Year Ending September 30, 1925.*

PSYCHOSES	Total			Less than 1 month			1-3 months			4-7 months			8-12 months			1-2 years			3-4 years			5-6 years			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
1. Traumatic.	2	1	3																						
2. Senile.	13	43	56																						
3. With cerebral arteriosclerosis.	43	31	74																						
4. General paralysis.	22	12	34																						
5. With cerebral syphilis.	2	1	3																						
6. With Huntington's chorea.	0	2	2																						
7. With brain tumor.	0	6	6																						
8. With other brain or nervous diseases.	6	3	9																						
9. Alcoholic.	3	3	6																						
10. Due to drugs and other exogenous toxins.	0	0	0																						
11. With pellagra.	0	0	0																						
12. With other somatic diseases.	1	7	8																						
13. Manic-depressive.	7	3	10																						
14. Involution melancholia.	3	19	22																						
15. Dementia praecox.	10	8	18																						
16. Paranoia or paranoid conditions.	2	0	2																						
17. Epileptic psychoses.	0	0	0																						
18. Psychoneuroses and neuroses.	0	0	0																						
19. With psychopathic personality.	0	2	2																						
20. With mental deficiency.	2	1	3																						
21. Undiagnosed psychoses.	1	1	2																						
22. Without psychosis.	0	1	1																						
TOTAL.	117	141	258	24	20	44	24	22	46	13	15	28	5	6	11	26	33	59	11	13	24	0	8	8	8

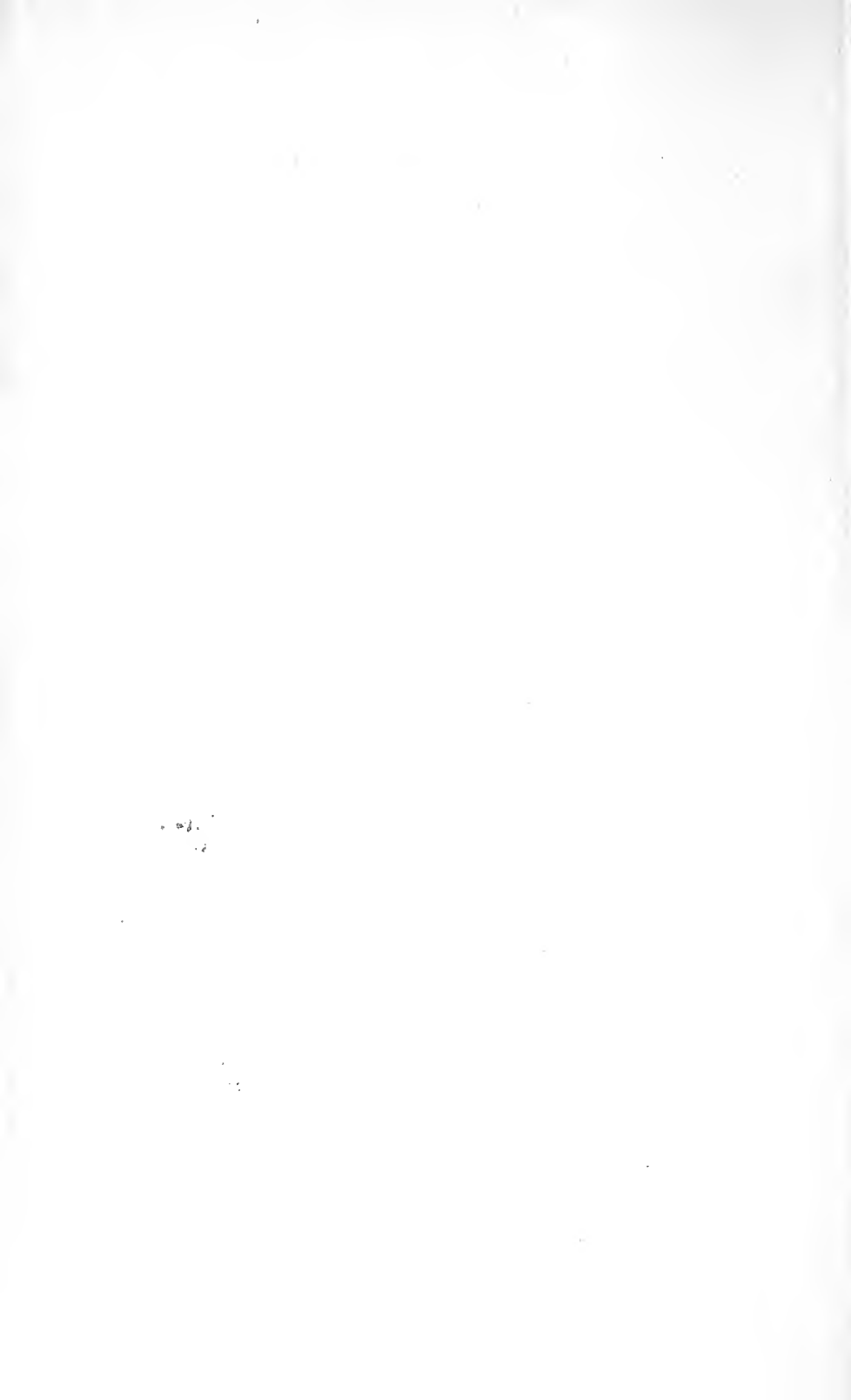
TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses, for the Year Ending September 30, 1925—Concluded.*

PSYCHOSES	7-8 years			9-10 years			11-12 years			13-14 years			15-19 years			20 years and over			Unascertained		
	7-8 years		T.	9-10 years		T.	11-12 years		T.	13-14 years		T.	15-19 years		T.	20 years and over		T.	Unascertained		T.
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.	
1. Traumatic.....	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-
2. Senile.....	-	-	-	-	-	-	0	1	-	1	0	1	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis.....	-	-	-	1	0	1	-	-	-	1	0	1	-	-	-	1	0	1	-	-	-
5. With cerebral syphilis.....	-	-	-	0	1	1	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases.....	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1	-	-	-
9. Alcoholic.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases.....	0	1	1	0	1	1	-	-	-	-	0	1	1	-	-	0	1	1	0	1	1
13. Manic-depressive.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14. Involution melancholia.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox.....	1	1	2	1	1	2	1	0	1	2	1	3	-	0	1	0	2	0	1	1	1
16. Paranoia or paranoid conditions.....	0	2	2	0	2	2	0	1	1	1	0	1	1	0	1	0	1	1	-	-	-
17. Epileptic psychoses.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality.....	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1	-	-	-
22. Without psychosis.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL.....	1	8	9	2	5	7	1	2	3	6	3	9	1	0	1	2	5	7	1	1	2

TABLE 19. *Family Care Department, Year Ending September 30, 1925.*

	M.	F.	T.
Remaining in Family Care September 30, 1924.....	1	11	12
Admitted within the year.....	0	8	8
Nominally admitted from visit.....	0	1	1
Whole number of cases.....	1	20	21
Dismissed within the year:			
Returned to institution.....	0	7	7
Discharged.....	1	0	1
On visit.....	0	3	3
Remaining September 30, 1925.....	0	10	10
Supported by State.....	0	6	6
Private.....	0	3	3
Self-supporting.....	0	1	1
On visit from Family Care September 30, 1925.....	0	2	2
Self-supporting.....	0	2	2
Number of different persons within the year.....	1	15	16
Number of different persons admitted.....	0	8	8
Number of different persons discharged.....	1	7	8
Average daily number in Family Care.....	0.97	10.12	11.09
Supported by State.....	0.00	7.04	7.04
Reimbursing.....	0.00	0.00	0.00
Private.....	0.97	1.17	2.14
Self-supporting.....	0.00	1.91	1.91
Average daily number on visit from Family Care.....	0.00	1.14	1.14
Self-supporting.....	0.00	1.14	1.14





MASS.  
DOCS.  
COLL.

The Commonwealth of Massachusetts

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1927

---

THE EIGHTY-SEVENTH ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION OF ADMINISTRATION AND FINANCE  
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## The Commonwealth of Massachusetts

### TRUSTEES' REPORT.

*To His Excellency the Governor and the Honorable Council:*

The trustees of the Boston State Hospital have the honor to submit herewith their nineteenth annual report covering the year ended November 30, 1927. The trustees have held their usual monthly meetings, and committees of the Board have made their systematic visits. The general condition of the hospital and the care of the patients have met their approval. The operations of the year are fully described in the accompanying report of the Superintendent.

The term of office of Mr. David M. Watchmaker expired in February, and as he declined a reappointment and as his successor has not been appointed, there remains a vacancy in the membership of the Board.



## PERSONS UNDER THE CARE OF THE TRUSTEES.

At the beginning of the year there were 2,126 patients in the hospital, 9 in private care, and 227 on visit or escape, making a total of 2,362 persons under the care of the trustees. At the close of the year the total number was 2,401, of whom 2,201 were in the hospital, 10 were in private care, and 190 on visit or escape.

## COST OF MAINTENANCE.

The amount allowed for maintenance by the General Court was \$805,230.00, to which should be added \$28,821.76 brought over from the previous year. By strict economy in operations and because of vacancies in the personal service, the expenses of the year were kept within the appropriation, notwithstanding the increase in the salary and wage scales that were finally authorized and made retroactive to June first.

## ESTIMATES FOR MAINTENANCE.

The following are the estimates for the amount needed for maintenance for the ensuing year based on the established salary scales and the established per capita allowances for a population of 2,225:

Personal Service.....	\$454,205.20
Religious Instruction.....	2,080.00
Travel, transportation and office expenses.....	7,006.10
Food.....	231,956.15
Clothing and materials.....	34,096.50
Heat, light and power.....	76,891.07
Medical and general care.....	32,211.81
Furnishings and household supplies.....	46,704.10
Farm.....	7,703.01
Garage, stables and grounds.....	8,717.10
Repairs, ordinary.....	21,456.69
Repairs and renewals.....	31,653.35
Total.....	\$954,681.08

## NEW CONSTRUCTION.

No appropriation has been made for new construction for several years. It is hoped that in the extended programme to be recommended by the Department of Mental Diseases some provision will be made for the more pressing needs of this hospital. These include accommodations for the administrative offices, quarters for the staff and the male employees, and an adequate reception building for patients. The trustees again urge attention to the fire risk in some of the present wooden buildings, a risk that cannot be overcome by any of the usual processes of protection.

HENRY LAFAYOUR

CHARLES B. FROTHINGHAM

KATHERINE G. DEVINE

EDNA W. DREYFUS

WILLIAM F. WHITTEMORE

J. WALDO POND

NOVEMBER 30, 1927.

*Trustees.*

## SUPERINTENDENT'S REPORT.

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1927, and the fiscal year ending November 30, 1927. Founded by the City of Boston in 1839, this marks the completion of its eighty-eighth year as a hospital for mental diseases, and the nineteenth year of its history as a State institution.

## MOVEMENT OF POPULATION.

The census of the hospital on September 30, 1926, was as follows: in the wards, men, 898, women, 1,244, total, 2,122; at home on visit, men, 105, women, 121, total, 226; boarding out, men none, women, 7; and out on escape, men, 2, women, 3, total, 5; making a total of 2,360, 1,005 men and 1,355 women, in the custody of the hospital.

Three hundred and five men and 315 women, a total of 620, were received during the year. This included the following: first admissions as insane,\* men, 184, women, 216, total, 400; readmissions as insane,\*\* men, 34, women, 54, total, 88; first admissions, temporary care, men, 32, women, 21, total 53; readmissions, temporary care,\*\*\* men, 40, women, 13, total, 53; and transferred from other institutions, men, 15, women, 11, total, 26. Three hundred and nine cases, including 154 men and 155 women, were discharged during the year. One man and eight women, a total of 9, were transferred to other institutions. One hundred and thirty-three men and 134 women, a total of 267, died during the year.

The census on September 30, 1927, was as follows: in the wards, men, 935, women, 1,247, total, 2,182; at home on visit, men, 80, women, 114, total, 194; boarding out, men, none, women, 10; and out on escape, men, 5, women, none; making a total of 2,391, 1,020 men and 1,371 women, in the custody of the hospital.

The total number of cases treated during the year was 2,980, 1,310 men and 1,670 women.

The average daily number of patients for the statistical year was: men, 1,008.60, women, 1,358.38, total, 2,366.98. The average daily number in the wards was: men, 913.16, women, 1,234.87, total, 2,148.03, or 90.75 per cent of the whole number. The average daily number at home on visit was: men, 92.99, women, 114.27, total, 207.26, or 8.76 per cent. The average daily number boarding out was: men, none, women, 8.69, or .36 per cent. The average daily number out on escape was: men, 2.45, women, .55, total, 3.00, or .13 per cent. The average daily number of committed cases was: men, 908.36, women, 1,230.96, total, 2,139.32, or 99.59 per cent of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was: men, .044, women, .06, total, .104, or .005 per cent. The average daily number of temporary care cases was: men, 4.80, women, 3.91, total, 8.71, or .41 per cent. The average daily number of cases under complaint or indictment was: men, 9.99, women, 1.21, total, 11.20, or .52 per cent. The average daily number of epileptics was: men, 11.00, women, 10.19, total, 21.19, or .99 per cent. The average daily number of tubercular patients was: men, 9.97, women, 35.62, total, 45.59, or 2.12 per cent. The private cases are included with the reimbursing cases. The average daily number of reimbursing cases was: men, 109.72, women, 206.89, total, 316.69 or 14.74 per cent. The average daily number of cases supported by the State was: men, 803.44, women, 1,277.99, total, 1,831.34, or 85.26 per cent. There was a daily average of 51.42 ex-service men.

The recovery rate, based on the number of all first admissions (453), was 13.69 per cent; based on the total number cared for during the year (2,980), 2.08 per cent; based on the average daily number in the wards (2,148.03), 2.88 per cent; and based on the total number of admissions (620) for the year, 10.00 per cent.

The death rate, based on the total number cared for during the year, was 8.96 per cent; and based on the average daily number in the wards, 12.43 per cent.

\*Including one woman committed from temporary care of the preceding year.

\*\*Including 1 man and 1 woman committed from temporary care of the preceding year.

\*\*\*Including 1 man changed from committed, Sec. 51, of the preceding year to Sec. 100, temporary care.

The death rate of the hospital is unusually large when compared with that of other hospitals of a similar character, as about thirty-five per cent of the population is of the infirmary type, and nearly ten per cent represents actual bed cases. This is due to the fact that the acutely ill, the senile and the infirm cases from the city cannot be readily transferred to distant places, and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate.

Of the first admissions as insane, 191, or 47.75 per cent, were foreign born, and 340, or 85.00 per cent, were of foreign parentage on one or both sides. Eighty-two, or 20.50 per cent, were aliens. Citizenship was unascertained in 20, or 5.00 per cent. Of 2,933 consecutive first admissions as insane, for the seven-year period beginning October 1, 1920, 1,460, or 49.77 per cent, were foreign born; 2,390, or 81.41 per cent, were of foreign parentage on one or both sides, 564, or 19.23 per cent, were aliens, and citizenship was unascertained in 334, or 11.39 per cent.

The average age on admission was 53.61; 165, or 41.25 per cent, were sixty years of age or over, and 88, or 22 per cent, were seventy years of age or over. For the seven-year period beginning October 1, 1920, the average age on admission was 51.36; 1,090, or 37.16 per cent, were sixty years of age or over; and 577, or 19.67 per cent, were seventy years of age or over.

The first admissions for the year, classified according to legal status, were as follows:

	Males	Females	Total
Committed cases (section 51, chapter 123, General Laws).....	132	145	277
Voluntary admissions (section 86, chapter 123, General Laws).....	0	0	0
Emergency commitments (section 78, chapter 123, General Laws).....	3	3	6
Pending examination and hearing (section 55, chapter 123, General Laws).....	0	0	0
Temporary care cases (section 79, chapter 123, General Laws).....	45	57	102
Observation cases (section 77, chapter 123, General Laws).....	4	11	15
<b>Total</b> .....	<b>184</b>	<b>216</b>	<b>400</b>

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (section 51, chapter 123, General Laws), 69.25 per cent; emergency cases (section 78, chapter 123, General Laws), 1.50 per cent; temporary care cases (section 79, chapter 123, General Laws), 25.50 per cent; and observation cases (section 77, chapter 123, General Laws), 3.75 per cent. For the seven-year period beginning October 1, 1920, the distribution of the 2,933 first admissions, classified according to legal status, was as follows: committed cases (section 51, chapter 123, General Laws), 2,226, or 75.89 per cent; emergency cases (section 78, chapter 123, General Laws), 48, or 1.64 per cent; temporary care cases (section 79, chapter 123, General Laws), 502, or 17.12 per cent; observation cases (section 77, chapter 123, General Laws), 133, or 4.54 per cent; and cases held under complaint or indictment (section 100, chapter 123, General Laws), 19, or .65 per cent. During the above period there was only one case pending examination and hearing (section 55, chapter 123, General Laws), and one Boston Police case (chapter 307, Acts of 1910.) No voluntary cases (section 86, chapter 123, General Laws) have been received since 1921, during which year there were three.

The first admissions for the year included 277 committed cases. Of these, 11, or 3.97 per cent, were discharged; one, or .36 per cent, was transferred to another hospital for mental diseases; 60, or 21.66 per cent, died; and 205, or 74.01 per cent, remained at the end of the statistical year.

Of the first admissions for the year, six were emergency cases, all of which were committed within a few days after admission.

One hundred and two of the first admissions during the year were temporary care cases. Of these, 94, or 92.16 per cent, were committed; 2, or 1.96 per cent, changed to emergency status (section 78, chapter 123, General Laws); and 6, or 5.88 per cent, to observation status (section 77, chapter 123, General Laws).

The first admissions for the year also included 15 cases admitted for observation under the provisions of section 77, chapter 123, General Laws, all of which were subsequently committed.

Of the 400 first admissions for the year, the cause was unascertained or no cause given in 92 cases, or 23.00 per cent. In the 308 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 73, or 23.05 per cent; arteriosclerosis, 96, or 31.17 per cent; syphilis, 34, or 11.04 per cent; alcoholism, 24, or 7.79 per cent; involutional changes, 30, or 9.74 per cent; and traumatism, 5, or 1.62 per cent. There was a family history of mental diseases in 72, or 18.00 per cent, mental defects in 5, or 1.25 per cent, and nervous diseases in 10, or 2.50 per cent, of the first admissions. Of the 2,933 first admissions to the hospital since October 1, 1920, the cause was unascertained or no cause given in 905, or 30.85 per cent of the cases. In the 2,028 cases *where a definite cause was assigned*, the etiological factors are classified as follows: senility, 395, or 19.47 per cent; arteriosclerosis, 464, or 22.88 per cent; syphilis, 292, or 14.39 per cent; alcoholism, 265, or 13.06 per cent; involutional changes, 135, or 6.65 per cent, and traumatism, 39, or 1.92 per cent. There was a family history of mental diseases in 473, or 16.13 per cent, mental defects in 53, or 1.81 per cent, and nervous diseases in 126, or 4.29 per cent, of the first admissions.

The forms of mental diseases shown by the 400 first admissions for the year, briefly summarized, were as follows: senile psychoses, 62, or 15.50 per cent; psychoses with cerebral arteriosclerosis, 98, or 24.50 per cent; general paralysis, 28, or 7.00 per cent; psychoses with cerebral syphilis, 5, or 1.25 per cent; alcoholic psychoses, 20, or 5.00 per cent; psychoses with other somatic diseases, 18, or 4.25 per cent; manic-depressive psychoses, 51, or 12.75 per cent; involution melancholia, 10, or 2.50 per cent; dementia praecox, 28, or 7.00 per cent; paranoia or paranoid conditions, 38, or 9.50 per cent; epileptic psychoses, 8, or 2.00 per cent; psychoses with mental deficiency, 11, or 2.75 per cent; undiagnosed psychoses, 8, or 2.00 per cent; and all other psychoses one per cent or less. Four, or 1.00 per cent, were without psychosis. The psychoses of all first admissions for the year are shown in Table No. 6 on page 31. The forms of mental disease shown by the 2,933 first admissions since October 1, 1920, are summarized as follows: Traumatic psychoses, 15, or .51 per cent; senile psychoses, 437, or 14.90 per cent; psychoses with cerebral arteriosclerosis, 584, or 19.91 per cent; general paralysis, 267, or 9.09 per cent; psychoses with cerebral syphilis, 20, or .63 per cent; psychoses with Huntington's chorea, 4, or .14 per cent; psychoses with brain tumor, 6, or .20 per cent; psychoses with other brain or nervous diseases, 50, or 1.70 per cent; alcoholic psychoses, 211, or 7.19 per cent; psychoses due to drugs and other exogenous toxins, 12, or .41 per cent; psychoses with pellagra, 2, or .07 per cent; psychoses with other somatic diseases, 91, or 3.10 per cent; manic-depressive psychoses, 367, or 12.52 per cent; involution melancholia, 69, or 2.35 per cent; dementia praecox, 373, or 12.72 per cent; paranoia or paranoid conditions, 171, or 5.83 per cent; epileptic psychoses, 22, or .75 per cent; psychoneuroses and neuroses, 22, or .75 per cent; psychoses with psychopathic personality, 22, or .75 per cent; psychoses with mental deficiency, 77, or 2.63 per cent; and undiagnosed psychoses, 85, or 2.90 per cent. Twenty-six, or .90 per cent, were without psychosis. Attention should be called here again to the fact that the psychoses represented by our first admissions are not consistent with the admission rate shown by other hospitals.

This is due to the fact that the acutely ill, the senile and infirm cases from the City of Boston cannot be removed to distant institutions and for that reason are brought here. It does not, of course, mean that the admission rates for manic-depressive insanity and for dementia praecox are lower in Boston. As a matter of fact, if the senile and arteriosclerotic cases are disregarded, it will be readily apparent that this is not the case.

The forms of mental disease shown by the readmissions for the year, briefly summarized, were as follows: senile psychoses, 7, or 7.95 per cent; psychoses with cerebral arteriosclerosis, 3, or 3.41 per cent; alcoholic psychoses, 6, or 6.82 per cent; psychoses with other somatic diseases, 1, or 1.14 per cent; manic-depressive psychoses, 28, or 31.82 per cent; involution melancholia, 3, or 3.41 per cent; dementia praecox, 17, or 19.32 per cent; paranoia or paranoid conditions, 7, or 7.95 per cent; epileptic psychoses, 4, or 4.54 per cent; psychoses with psychopathic personality, 1, or 1.14 per cent; psychoses with mental deficiency, 7, or 7.95 per cent; and without psychosis, 4, or 4.54 per cent.

Of these admissions, 51, or 57.96 per cent, were committed under the provisions of section 51, chapter 123, General Laws; 26, or 29.54 per cent, were temporary care cases (section 79, chapter 123, General Laws); 7, or 7.95 per cent, were observation cases (section 77, chapter 123, General Laws); and 4, or 4.54 per cent, emergency cases (section 78, chapter 123, General Laws). No voluntary cases (section 86, chapter 123, General Laws) and no cases held under complaint or indictment (section 100, chapter 123, General Laws) or pending examination and hearing (section 55, chapter 123, General Laws) were included in the readmissions for the year.

The following tables show the psychoses of the 400 first admissions for the year classified according to legal status:

*Psychoses of Committed Cases (Section 51, Chapter 123, General Laws).*

	M.	F.	T.
Senile psychoses.....	10	26	36
Psychoses with cerebral arteriosclerosis.....	36	32	68
General paralysis.....	15	4	19
Psychoses with cerebral syphilis.....	1	2	3
Psychoses with Huntington's chorea.....	0	2	2
Psychoses with other brain or nervous diseases.....	2	—	2
Alcoholic psychoses.....	10	5	15
Psychosis due to drugs or other exogenous toxins.....	1	—	1
Psychoses with other somatic diseases.....	8	2	10
Manic-depressive psychoses.....	11	29	40
Involution melancholia.....	5	4	9
Dementia praecox.....	11	8	19
Paranoia or paranoid conditions.....	11	20	31
Epileptic psychoses.....	1	3	4
Psychoneurosis or neurosis.....	—	1	1
Psychosis with psychopathic personality.....	1	—	1
Psychoses with mental deficiency.....	3	3	6
Undiagnosed psychoses.....	2	4	6
Without psychosis.....	4	—	4
Total.....	132	145	277

*Psychoses of Emergency Cases (Section 78, Chapter 123, General Laws).*

	M.	F.	T.
General paralysis.....	1	—	1
Alcoholic psychosis.....	1	—	1
Psychosis due to drugs or other exogenous toxins.....	1	—	1
Dementia praecox.....	—	1	1
Paranoia or paranoid conditions.....	—	2	2
Total.....	3	3	6

*Psychoses of Temporary Care Cases (Section 79, Chapter 123, General Laws).*

	M.	F.	T.
Senile psychoses.....	3	22	25
Psychoses with cerebral arteriosclerosis.....	18	11	29
General paralysis.....	6	2	8
Psychosis with cerebral syphilis.....	—	1	1
Psychosis with other brain or nervous disease.....	1	—	1
Alcoholic psychoses.....	3	—	3
Psychoses with other somatic diseases.....	2	6	8
Manic-depressive psychoses.....	5	3	8
Involution melancholia.....	—	1	1
Dementia praecox.....	3	3	6
Paranoia or paranoid conditions.....	1	3	4
Epileptic psychoses.....	1	2	3
Psychoses with mental deficiency.....	2	1	3
Undiagnosed psychoses.....	—	2	2
Total.....	45	57	102

*Psychoses of Observation Cases (Section 77, Chapter 123, General Laws).*

	M.	F.	T.
Senile psychosis.....	—	1	1
Psychosis with cerebral arteriosclerosis.....	—	1	1
Psychosis with cerebral syphilis.....	—	1	1
Alcoholic psychosis.....	—	1	1
Manic-depressive psychoses.....	2	1	3
Dementia praecox.....	—	2	2
Paranoia or paranoid condition.....	—	1	1
Epileptic psychosis.....	—	1	1
Psychoneuroses and neuroses.....	1	1	2
Psychoses with mental deficiency.....	1	1	2
Total.....	4	11	15

One hundred and ninety-five temporary care cases (section 79, chapter 123, General Laws) were admitted during the year ending September 30, 1927. Of these, 116, or 59.50 per cent, were committed under the provisions of section 51, chapter 123, General Laws; 21, or 10.76 per cent, changed to observation status; none to voluntary status; 6, or 3.08 per cent, to emergency status; 1, or .51 per cent, to section 100, chapter 123, General Laws (held on complaint or indictment); 45, or 23.07 per cent, were discharged; 3, or 1.54 per cent, died; and 3, or 1.54 per cent, remained at the end of the statistical year. Of the 45 discharged, none were discharged as recovered; 5, or 11.11 per cent, were discharged as improved; 35, or 77.78 per cent, as unimproved; and 5, or 11.11 per cent, as without psychosis.

Sixteen emergency cases (section 78, chapter 123, General Laws), including six cases from section 79, were admitted during the year. Twelve of these were committed in accordance with section 51, chapter 123, General Laws; two were discharged (both as unimproved); one died; and one remained at the end of the statistical year.

Sixty-six observation cases (section 77, chapter 123, General Laws), including 21 cases from section 79, were admitted during the year. Of these, 30, or 45.45 per cent, were subsequently committed under the provisions of section 51, chapter 123, General Laws; 26, or 39.40 per cent, discharged; and 10, or 15.15 per cent, remained at the end of the statistical year. Of the 26 discharges, 5, or 19.23 per cent, were discharged as recovered; 7, or 26.92 per cent, as improved; none as unimproved; and 14 or 53.85 per cent, as without psychosis.

Thirteen cases held under complaint or indictment (section 100, chapter 123, General Laws) were admitted during the year. Of these, four were discharged and returned to Court (one each, recovered, improved, unimproved, and without psychosis), and nine remained on the books of the hospital at the end of the statistical year.

No voluntary cases (section 86, chapter 123, General Laws) and no cases pending examination and hearing (section 55, chapter 123, General Laws) were admitted during the year.

The following table shows the psychoses of all cases admitted as temporary care, all forms, and subsequently committed under the provisions of section 51, chapter 123, General Laws, for the seven-year period beginning October 1, 1920:

	M.	F.	T.
Traumatic psychoses.....	4	1	5
Senile psychoses.....	41	103	144
Psychoses with cerebral arteriosclerosis.....	92	99	191
General paralysis.....	36	10	46
Psychoses with cerebral syphilis.....	4	4	8
Psychoses with Huntington's chorea.....	—	2	2
Psychoses with brain tumor.....	1	—	1
Psychoses with other brain or nervous diseases.....	13	3	16
Alcoholic psychoses.....	45	15	60
Psychoses due to drugs and other exogenous toxins.....	1	3	4
Psychoses with pellagra.....	—	—	—
Psychoses with other somatic diseases.....	13	21	34
Manic-depressive psychoses.....	46	80	126
Involution melancholia.....	2	9	11
Dementia praecox.....	46	44	90
Paranoia and paranoid conditions.....	6	36	42
Epileptic psychoses.....	4	4	8
Psychoneuroses and neuroses.....	6	6	12
Psychoses with psychopathic personality.....	6	7	13
Psychoses with mental deficiency.....	13	15	28
Undiagnosed psychoses.....	8	13	21
Without psychosis.....	2	4	6
Total.....	389	479	868

The total number of cases discharged during the year was 229. Of this number 56, or 24.45 per cent, were discharged as recovered; 130, or 56.77 per cent, as improved; 38, or 16.60 per cent, as unimproved; and 5, or 2.18 per cent, as without psychosis. Of the 56 recovered cases, 2, or 3.57 per cent, were cases of senile psychosis; 8, or 14.27 per cent, alcoholic psychosis; 2, or 3.57 per cent, psychosis due to drugs and other exogenous toxins; 36, or 64.29 per cent, manic-depressive psychosis; 3, or 5.36 per cent, psychoneurosis or neurosis; 2, or 3.57 per cent, psychosis with mental deficiency; and each of the following, 1, or 1.49 per cent: psychosis with cerebral arteriosclerosis, psychosis with other somatic disease, and psychosis with psychopathic personality. Of the 130 cases discharged as improved, 3, or 2.31 per cent, were cases of senile psychosis; 10, or 7.69 per cent, psychosis with cerebral arteriosclerosis; 4, or 3.07 per cent, general paralysis; 2, or 1.54 per cent, psychosis with cerebral syphilis; 12, or 9.23 per cent, alcoholic psychosis; 3, or 2.31 per cent, psychosis with other somatic disease; 25, or 19.23 per cent, manic-depressive psychosis; 2, or 1.54 per cent, involution melancholia; 37, or 28.46 per cent, dementia praecox; 14, or 10.77 per cent, paranoia or paranoid condition; 2, or 1.54 per cent, psychoneurosis or neurosis; 2, or 1.54 per cent, psychosis with psychopathic personality; 9, or 6.92 per cent, psychosis with mental deficiency; 3, or 2.31 per cent, undiagnosed psychosis; and 1, or .77 per cent, each, traumatic psychosis and psychosis with other brain or nervous disease. Of the 38 cases discharged as unimproved, 6, or 15.78 per cent, were cases of manic-depressive psychosis; 11, or 28.94 per cent, dementia praecox; 3, or 7.90 per cent, psychosis with other somatic disease; 2, or 5.26 per cent, each, senile psychosis, psychosis

with cerebral arteriosclerosis, general paralysis, psychosis with other brain or nervous disease, paranoia or paranoid condition, epileptic psychosis, and psychoneurosis or neurosis; and 1, or 2.64 per cent, each, involution melancholia, psychosis with psychopathic personality, psychosis with mental deficiency, and undiagnosed psychosis.

The following is a study of the entire hospital residence (including other institutions for mental diseases) of the cases discharged during the year: Thirteen, or 5.68 per cent, were discharged after a residence of less than one month; 73, or 31.87 per cent, after a residence of from one to six months; 39, or 17.03 per cent, from six months to one year; 32, or 14.00 per cent, from one to two years; 20, or 8.73 per cent, from two to three years; 15, or 6.55 per cent, from three to four years; 14, or 6.11 per cent, four to five years; 20, or 8.73 per cent, five to ten years; and 3, or 1.30 per cent, ten years or over. The average duration of hospital residence was one year, ten months, and eleven days.

Of the 261 deaths occurring during the year, 163, or 62.45 per cent, represented cases dying at the age of sixty or over. In 98 cases, or 37.16 per cent, death occurred at the age of seventy or over. Of the 1,842 deaths occurring at the hospital during the seven-year period beginning October 1, 1920, 1,067, or 57.92 per cent, were cases dying at the age of sixty or over; and in 638, or 34.63 per cent, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: bronchopneumonia, 83, or 35.63 per cent; arteriosclerosis, 26, or 9.96 per cent; tuberculosis of the lungs, 29, or 11.11 per cent; endocarditis and myocarditis, 49, or 18.77 per cent; general paralysis of the insane, 13, or 4.98 per cent; lobar pneumonia, 22, or 8.43 per cent; cerebral hemorrhage, 9, or 3.83 per cent; and cancer, 4, or 1.53 per cent.

The psychoses represented by deaths occurring in the hospital during the year were as follows: senile psychoses, 57, or 21.84 per cent; psychoses with cerebral arteriosclerosis, 80, or 30.65 per cent; general paralysis, 36, or 13.80 per cent; psychoses with Huntington's chorea, 3, or 1.15 per cent; psychoses with other brain or nervous diseases, 4, or 1.54 per cent; alcoholic psychoses, 3, or 1.15 per cent; psychoses with other somatic diseases, 17, or 6.51 per cent; manic-depressive psychoses, 20, or 7.66 per cent; involution melancholia, 3, or 1.15 per cent; dementia praecox, 23, or 8.82 per cent; paranoia and paranoid condition, 8, or 3.06 per cent; epileptic psychoses, 3, or 1.15 per cent; undiagnosed psychosis, 2, or .76 per cent; and psychoneurosis or neurosis and psychosis with mental deficiency each 1, or .38 per cent. Of the 57 cases of senile psychosis dying in the hospital during the year, 22, or 38.60 per cent, were due to bronchopneumonia, and 19, or 33.33 per cent, to endocarditis and myocarditis. Of the 80 cases of psychosis with cerebral arteriosclerosis, death was due in 31, or 38.75 per cent, to bronchopneumonia, in 16, or 20.00 per cent, to endocarditis and myocarditis, and in 16, or 20.00 per cent, death was attributed directly to arteriosclerosis. Of the 36 cases of general paralysis, 17, or 47.22 per cent, were reported as dying from bronchopneumonia, and in 13, or 36.11 per cent, general paralysis of the insane was given as the cause of death. Of the 23 cases of dementia praecox, death was due in 15, or 65.22 per cent, to pulmonary tuberculosis.

Of the 261 patients dying in the hospital during the year, the total duration of hospital residence was as follows: one year or less, 134, or 51.34 per cent; one to two years, 32, or 12.26 per cent; two to three years, 21, or 8.05 per cent; three to four years, 17, or 6.51 per cent; four to five years, 7, or 2.68 per cent; five to six years, 8, or 3.07 per cent; six to seven years, 11, or 4.21 per cent; seven to eight years, 5, or 1.92 per cent; eight to nine years, none; nine to ten years, 2, or .76 per cent; ten to fifteen years, 15, or 5.75 per cent; fifteen to twenty years, 1, or .38 per cent; and over twenty years, 8, or 3.07 per cent. The duration of hospital residence was ascertained in all cases during the year. The psychoses showing the longest



hospital residence were as follows: alcoholic psychosis, one over 34 years; manic-depressive psychosis, one over 20 years and one over 32 years; and dementia praecox, one over 17 years, one over 21 years, one over 24 years, one over 28 years, and one over 33 years. The following shows the duration of hospital residence of all cases dying in the hospital during the seven-year period beginning October 1, 1920: one year or less, 939, or 50.98 per cent; one to two years, 258, or 14.00 per cent; two to three years, 162, or 8.80 per cent; three to four years, 90, or 4.88 per cent; four to five years, 81, or 4.40 per cent; five to six years, 34, or 1.85 per cent; six to seven years, 50, or 2.71 per cent; seven to eight years, 39, or 2.12 per cent; eight to nine years, 26, or 1.41 per cent; nine to ten years, 29, or 1.57 per cent; ten to fifteen years, 77, or 4.18 per cent; fifteen to twenty years, 21, or 1.14 per cent; and over twenty years, 34, or 1.85 per cent. In this total of 1,842 deaths, the duration of hospital residence was unascertained in 2, or .11 per cent.

The following general statistical information relating to ward service should be of interest:

	Males	Females	Totals	Percent
Average daily population.....	913.16	1,234.87	2,148.03	100.00
In bed.....	105.47	117.50	222.97	10.38
In restraint.....	.95	2.51	3.46	.15
In seclusion.....	1.44	7.00	8.44	.39
Eating in dining rooms.....	781.79	737.23	1,519.02	70.72
Eating in wards.....	131.37	497.64	629.01	29.28
Fed by nurses.....	17.19	78.40	95.59	4.45
Idle.....	400.85	580.98	981.83	45.71
Employed.....	512.31	653.89	1,166.20	54.29
Parole of grounds.....	119.02	25.43	144.45	6.72
Out for exercise.....	802.78	825.03	1,627.81	75.78
Noisy.....	42.62	148.14	190.76	8.88
Violent.....	.34	47.41	47.75	2.22
Destructive.....	10.94	107.43	118.37	5.51
Soiled or wet.....	88.20	180.94	269.14	12.53
Taking medicine.....	16.87	23.19	40.06	1.86
Infirm.....	344.45	408.06	752.51	35.03

The average daily number for the entire year is represented in each instance in the percentages given in the preceding table, that is: the average daily number of patients in bed was 222.97, or 10.38 per cent of the average daily number of patients in the wards of the hospital for the year, and the average daily number out for exercise was 1,627.81, or 75.78 per cent of the same average daily population. The large percentage of bed cases shown, over ten per cent, is explained by the fact that many senile and infirm cases, which cannot readily be removed to institutions outside of the metropolitan district, are of necessity received at the Boston State Hospital. This accounts in some measure for the large proportion of our patients who belong to the infirmary class,—thirty-five per cent of the total number cared for. The continued shortage of trained nurses and attendants is partly responsible for the amount of restraint and seclusion as shown by the above table, although this is small, and has decreased somewhat during the year. If the percentage of the infirm (including the bed patients) is taken into consideration, it will be noted that quite a large proportion of our patients goes out daily, and the average daily number of patients employed in useful occupations is very gratifying. The average daily number of noisy patients is of considerable interest. The actual number of violent patients does not bear out popular ideas regarding institutions of this type.

#### GENERAL HEALTH OF THE HOSPITAL.

The health of the patients has been good throughout the past year, and there have been no epidemics or unusual illnesses. Various minor accidents and injuries

occurred in the wards from time to time and were all reported in the usual manner to the Board of Trustees and the Department of Mental Diseases.

Five hundred and fourteen Wassermann examinations were made for us by the State Department of Public Health,—453 blood serum and 61 cerebrospinal fluid. Dr. Roy D. Halloran has continued the treatment of neurosyphilis during the year, administering 416 treatments to twenty-four different patients,—an average of 17.33 treatments per patient.

#### EMPLOYEES.

On September 30, 1926, there were 424 persons in the employ of the hospital. During the year, 429 were appointed, 405 resigned, and 13 were discharged. Eight hundred and fifty-three persons occupied 464.5 positions,—a rotation of 1.83. The average daily number of employees during the year was 438.19, with 4.41 per cent of vacancies. The average daily number in the ward service was 253.46, with 4.51 per cent of vacancies. The ratio of ward employees to patients was one to 8.47, and of all employees, one to 4.90. The shortage of employees has decreased somewhat during the year. A large number of visitors come to the hospital to see their relatives and friends, and it is difficult to give them proper attention with a too limited number of attendants and nurses. On many days there are eight or nine hundred visitors, and we have had as many as 1,275 on one day. A greater number of accidents, injuries, and escapes doubtless occur than would be the case if there were more graduate nurses among our employees.

#### MEDICAL SERVICE.

On April 14, 1927, Dr. Norval D. Marbaker was appointed assistant physician to fill the vacancy caused by the resignation of Dr. George H. Maxfield, senior assistant physician, in October of last year. He resigned on September 18, 1927. Dr. Alexander Marcotte, assistant physician since July 25, 1925, resigned on August 1, 1927. To fill the vacancy thus created, Dr. Leo T. Kewer was appointed assistant physician on October 1, 1927, but resigned because of ill health on October 5, 1927. Dr. Kewer served here as an assistant physician from February 1, 1920, to March 25, 1921. On November 15, 1927, Dr. Gerald F. Houser was appointed to the position of assistant physician to succeed Dr. Norval D. Marbaker. Dr. Houser is a graduate in medicine from the University of Toronto and was transferred to this institution from the staff of the Danvers State Hospital. On January 1, 1927, Dr. Julius Loman was appointed assistant physician to have charge of the work of the pathological laboratory. Dr. Loman was born in Chelsea, is a graduate of the English High School of Boston, and received his degree in medicine from Tufts College Medical School in 1925. He has served as an interne at the Boston City Hospital and has had special instruction in pathological laboratory technique. Dr. George G. Kelly, assistant physician at this hospital since December 4, 1924, has presented his resignation, to take effect on December 4, 1927, on account of failing eyesight.

Staff meetings have been held as usual, alternating between the East Group and the West Group, with one meeting each month at the pathological laboratory. At these meetings an effort is made to present all new admissions, as well as cases about to leave the hospital on visit or cases to be discharged.

Dr. Irving J. Walker of Boston has continued to have charge of the surgical work of the hospital during the year, and has visited the institution as usual. Two cases were sent to the Boston City Hospital for operation. The more important operations of the year at this institution were as follows: Amputation of the breast, 2; Appendectomy, 2; Dilatation and curettage, 1; Excision of carbuncle from back, 2; Herniotomy, 3; Hysterectomy, 2; Incision of infected hand, 2; Incision of left external auditory meatus, 1; Incision of scrotum, 1; Removal of

growth on upper lip, 1; Removal of hemorrhoids, 2; Removal of wen, 1; Uterine repair, 1.

As in past years, all patients who gave any promise of benefit were given continuous and systematic treatment in the venereal clinic by Dr. Roy D. Halloran. This consisted of weekly intravenous injections of tryparsamid, an arsenical which has shown more promise than any other specific in the treatment of neurosyphilis. For the purpose of study these cases were divided into two groups: those who had completed the malarial treatment described in last year's report, and those who had not had this form of treatment. It is believed by many that the following-up of the febrile treatment with some specific, such as tryparsamid, is attended with more striking results. Some patients had been given malarial treatment before admission and others were previously treated in this clinic, either during the preceding year or during the early part of this year. Altogether, twenty-four cases received four hundred and eleven intravenous injections. The maximum dose was 3 grams. After only a year's observation of the combined form of treatment, only general observations are possible. It may be said that slightly more than half have shown improvement mentally and physically. Four are living outside the hospital. Two of these show no demonstrable mental symptoms. The other two are making a fair economic adjustment. Of the remainder, three have maintained their mental status. One died following a series of convulsions, and one continued to deteriorate gradually. Over one-half of those treated with tryparsamid only showed no apparent progress in the disease. One had been deteriorating rapidly and died after only a few treatments. Because of the wide use of the malarial treatment, a considerable number of cases of neurosyphilis admitted have had previous inoculations. Most of these cases represent the unsuccessful sequelae of the treatment, committed with unfavorable prognoses, for prolonged hospital care.

A logical method of studying the brain metabolism by comparing products in the blood withdrawn from the carotid artery, internal jugular and basilic veins was described in last year's report and has been carried on here by the Department of Mental Diseases under the supervision of Dr. Abraham Myerson of Tufts College Medical School. The difficulties arising from inadequate laboratory cooperation were overcome. About the first of the calendar year a modern and thoroughly equipped biochemical laboratory was installed in the basement of the F Building in the West Group, a location most desirable because of its proximity to the operating room where the specimens from patients are obtained. A biochemist of long experience was engaged. A group of forty-four cases of dementia praecox was selected with the cooperation of the relatives, and preparations for the investigations were ready. Because of the large number of tests with the proper controls necessary, the work has proceeded slowly. Specimens were examined for various metabolic products and the results tabulated. Wherever an apparent deviation from the known normal occurred, special tests and observations were made. It is yet too early to draw any definite conclusion. In all the tests thus far, with the exception of the carbon dioxide determination, there have been no consequent variations between the arterial and the venous blood specimens but in practically all cases, male and female, subnormal amounts of lecithin and cholesterol were found. The explanation for this is obviously not available at this time. It is believed that this method may be applied to the study of brain infections. With the purpose of stimulating interest and broader investigation, a preliminary report was read on April 26, 1927, before the Massachusetts Psychiatric Society, with the title, "A Method of Study of Brain Metabolism by Internal Jugular and Internal Carotid Punctures". A description of the technic entitled, "Technic for Obtaining Blood from the Internal Jugular Vein and Internal Carotid Artery" was published in the "Archives of Neurology and Psychiatry", June, 1927.

The Boltz Test, an acetic anhydride sulphuric acid test, was first described in the American Journal of Psychiatry in 1923 as a simple and specific spinal fluid test for general paralysis. The report was essentially corroborated by Grossman in the Journal of Mental Science in 1925, and by Harris in the British Medical Journal in 1926. It consisted briefly of the addition of .3 cm. of acetic anhydride to 1 cc. of spinal fluid and the further addition of .8 cm. of concentrated sulphuric acid. A lilac tint appearing immediately was considered a positive test for general paralysis. With the purpose of determining the practical value of this test, a considerable number of spinal fluids from general paralytics and from cases having a great variety of mental diagnoses were treated. Specimens from cases of acute and chronic meningitides and spinal cord tumors were obtained from the general hospital services. It was first observed that unless an acetic anhydride manufactured by a certain drug company was used, variable results were obtained. This product was later found to contain an impurity in greater quantity than in the products of other drug houses. The impurity was suspected as the cause of the color reaction. The Boltz Test was finally found, by Dr. Halloran and Dr. Marbaker, to be positive in all cases where there was an increase in protein in the spinal fluid, whatever the diagnosis. It was invariably positive in tests upon the supernatant blood serum where there are known to be quantities of protein. It seems fair to conclude that the Boltz Test is not a specific spinal fluid test for general paralysis.

#### OUT-PATIENT SERVICE

An important part of the work of the out-patient department is the supervision of patients in family care and those on visit, also the after care of cases discharged from the custody of the hospital. Many persons come to the hospital to consult members of the staff and receive medical advice on matters concerning their own welfare or that of their family or relatives. Social workers make frequent visits to patients who have been allowed to go home or who have left the hospital temporarily for family care. At regular intervals patients on visit are required to report at the hospital for observation. Many former patients who have been discharged are kept under the supervision of our social workers and physicians. Some cases which appear for consultation are referred to their family physicians or to the Boston Psychopathic Hospital. The following table shows the movement of patients under the supervision of the out-patient department:

	Males	Females	Total
In family care September 30, 1926.....	0	7	7
On visit September 30, 1926.....	105	121	226
On escape September 30, 1926.....	2	3	5
On visit from family care September 30, 1926.....	0	0	0
Dismissed to family care during the year.....	0	11	11
Dismissed on visit during the year.....	788	417	1205
Escaped during the year.....	12	0	12
Admitted from family care during the year.....	0	6	6
Admitted from visit during the year.....	722	314	1036
Admitted from escape during the year.....	9	1	10
Admitted from family care and discharged.....	0	2	2
Admitted from visit and discharged.....	91	110	201
Admitted from visit from family care.....	0	0	0
Admitted from visit from family care and discharged.....	0	0	0
In family care September 30, 1927.....	0	10	10
On visit September 30, 1927.....	80	114	194
On escape September 30, 1927.....	5	0	5
On visit from family care September 30, 1927.....	0	0	0

## SOCIAL SERVICE DEPARTMENT

The following is a summary of the social service work done during the year:	
Total number of cases considered.....	864
New cases, Hospital.....	376
New cases, School clinic.....	107
New cases, Community.....	1
Renewed cases from previous years.....	83
Renewed cases within the year.....	70
Continued cases from the previous year.....	227
Closed cases during the year:	
Hospital.....	379
School clinic.....	93
Community.....	1
Cases continued.....	391
Sources of new cases:	
Referred by physicians:	
Hospital.....	250
School.....	107
Referred by community agencies.....	79
Referred by friends or relatives.....	5
Selected by Social Service.....	43
Purposes for which cases were referred:	
Histories:	
Hospital patients.....	72
School clinic cases.....	107
Investigation:	
Conduct disorders.....	31
Employment situations.....	19
Home conditions.....	77
Statements of patients.....	30
Statements of others.....	39
Full social investigations.....	28
Court investigations.....	10
Location of relatives.....	23
Supervision:	
In the home.....	111
In industry.....	1
In the community.....	41
Care of patients' families.....	20
Personal services.....	81
Placement.....	15
Problems in all cases:	
Disease:	
Mental.....	757
Physical.....	5
Sex problems:	
Prostitution.....	2
Promiscuity.....	6
Wayward tendencies.....	14
Environment:	
Financial difficulties.....	6
Employment difficulties.....	23
Unsuitable surroundings.....	7
Friction (family 39, others 16).....	55

Marital difficulties.....	19
Personality problems:	
Temperament.....	12
Anti-social habits.....	28
Vacillating interests.....	3
Educational problems:	
Readjustment of habits of mind.....	48
Recreation; church; social relationships.....	8
Legal problems:	
Concerning property or support.....	2
Resulting from the conduct of patient.....	1
General problems:	
Resourcelessness.....	4
Retardation in school.....	101
Nature of service rendered:	
Medical:	
Information relating to school history.....	107
Information relating to medical history.....	193
Information relating to home conditions.....	121
Information relating to conditions of out-patients.....	143
Arrangements for medical assistance.....	6
Social:	
Adjustments for patients:	
Environment.....	60
Personal relations.....	7
In industry.....	4
Advice to relatives.....	129
Advice to patients.....	76
Advice to others.....	24
Connecting with agencies.....	65
Connecting with individuals.....	43
Family assistance:	
Legal.....	2
Miscellaneous.....	13
Arrangements for further study or training.....	10
Personal services.....	67
Placement work:	
Home.....	20
Industry.....	5
Locations of relatives.....	16
Total number of visits.....	1523
To patients on the ward.....	301
To patients on visit.....	337
To relatives or friends.....	496
To social agencies.....	135
To others.....	254

During the year there have been several changes in the personnel of the department. One worker resigned to take a position in another hospital, and another left to return to her home in the Middle West. These vacancies have both been filled and the department is now well equipped, with a staff of four paid workers, since a new position was created providing for one more assistant. The Smith College and the Simmons Schools for Social Work are represented on the staff, and

both the hospital and the Smith College School for Social Work have been served by the work of three students in training.

#### PATHOLOGICAL LABORATORY

The work of the laboratory has been carried on by Dr. Julius Loman since his appointment on January 1, 1927. Up to that time Dr. Marjorie Fulstow, pathologist to the Department of Mental Diseases, continued to have charge of the autopsies at the hospital.

The following is a summary of the routine work of the pathological laboratory for the year: Autopsies, 89; Blood examinations: Cell counts, red, 42; Cell counts, white, 42; Cell counts, differential, 42; Hemoglobin estimation, 42; Bacteriological examinations, 11; Examinations of feces, 1; Sections stained, 825; Sputum examinations, 29; Surgical specimens, 4; Throat cultures, 2; Urinalyses, 817.

There has been a considerable increase in the autopsy percentage over that of the preceding year. The number of deaths in the hospital was 267, 89 of which came to autopsy, making the autopsy percentage 33.33.

The psychoses in the cases coming to autopsy were as follows: senile psychoses, 17; psychoses with cerebral arteriosclerosis, 36; general paralysis, 7; psychosis with cerebral syphilis, 1; psychoses with other brain or nervous diseases, 2; alcoholic psychosis, 1; psychoses with other somatic diseases, 5; manic-depressive psychoses, 8; dementia praecox, 6; paranoia or paranoid condition, 3; psychoneurosis, 1; undiagnosed psychoses, 2.

The following were the causes of death: arteriosclerosis, general, 4; bronchopneumonia, 24; carcinoma of the sigmoid, 1; carcinoma of the uterus, 1; cerebral hemorrhage, 4; coronary thrombosis, 1; cystitis, acute, 3; empyema, 1; endocarditis, acute and chronic, 3; extradural hemorrhage (traumatic), 1; general paralysis, 2; ileocolitis, acute, 4; lobar pneumonia, 15;iliary tuberculosis, acute, 1; multiple infarcts of lung, 1; myocarditis, chronic, 7; nephritis, chronic, 1; peritonitis, acute, 2; pernicious anemia, 1; pleurisy with effusion, 1; pulmonary tuberculosis, 8; septicemia, general, 1; tuberculosis of the ileum, 1; volvulus of the sigmoid, 1.

Laboratory staff meetings with demonstrations of gross and microscopic specimens were held on the following cases: General paralysis, cerebral abscess, interpeduncular tumor, cord involvement in pernicious anemia, cerebrospinal syphilis with unusual cord involvement, and traumatic extradural hemorrhage with widespread meningitis.

#### DENTISTRY

The dental work of the hospital has been carried on throughout the year by Dr. Martin P. Rose, resident dentist, with the aid of a dental assistant for about nine months. An effort is made to give each patient an examination at least twice during the year, although it is not possible to do this in all cases. Any conditions requiring treatment are noted on the dental charts, and patients are given such attention as may be found necessary. Ether has been used in a considerable number of cases where the use of a local anesthetic was contraindicated. The following is a summary of the work accomplished during the year: Alveolotomies, 8; Curettements, 189; Extractions, 1,852; Facial inflammatory iodoform gauze drains, 26; Fillings, 385; Medicinal treatments, 490; Patients examined, 1,529; Patients treated 2,053; Prophylaxis, 437; Restorations, 54; Sutures, 92.

#### HYDROTHERAPY

The work of the hydrotherapy department of the hospital has been carried on during the year under the direction of Miss Frances N. O'Regan at the East Group and Mr. Perley M. Silver at the West Group. Four thousand nine hundred and

eleven continuous baths and 24,074 wet sheet packs were given, making the average daily number of continuous baths 13.45 and the average daily number of wet sheet packs 65.96. In addition to the above, the following treatments were given during the year: salt glows, 821; hair shampoos, 1,052; tub shampoos, 736; Swedish shampoos, 502; rain douches, 63; pail douches, 358; fomentations, 10; saline baths, 628; Sitz baths, 370; hot and cold to spine, 664; foot baths, 21; foot baths as preparatory treatment, 1,049; wet sheet packs as preparatory treatment, 288; wet mitten friction, 128; vapor baths, 167; needle sprays, 4,622; fan douches, 4,560; massotherapy, 1,251. In this department instruction has also been given, consisting of 107 lessons. One hundred and forty-eight different persons were treated, with the following psychosis: general paralysis, 1; psychosis with cerebral syphilis, 1; psychoses with other brain or nervous diseases, 4; alcoholic psychoses, 2; manic-depressive psychoses, 43; dementia praecox, 63; paranoid condition, 6; epileptic psychoses, 2; psychoneuroses and neuroses, 3; psychoses with psychopathic personality, 2; psychoses with mental deficiency, 9; undiagnosed psychoses, 11; and without psychosis, mental deficiency, 1.

#### SCHOOL CLINIC

Four hundred and eighty-six pupils were examined during the year. According to intellectual equipment these pupils were classified as follows: intellectually defective, 145, or 29.84 per cent; borderline, 162, or 33.33 per cent, dull normal, 115, or 23.66 per cent; normal, 52, or 10.70 per cent; superior normal, 3, or .62 per cent; and undiagnosed, 9, or 1.85 per cent. That thirty per cent only are found to be definitely feeble-minded demonstrates again a fact found in the work of previous years, namely, that deficiency of intelligence is by no means the sole explanation of unsatisfactory work in the grades. A surprisingly large number of pupils with normal intellectual equipment are found in the school clinic. Their poor school work is traced to various disabilities of the physical machinery, to neurotic and psychopathic disorders, personality deviations, and other mental considerations entirely apart from intellectual equipment. Such disabilities do not lend themselves readily to statistical classification, hence are not separately enumerated. These latter problems require far more time for study, their solution, much more than the designation "feble-mindedness", and placement in a special class. Their psychiatric significance is considerable because of possible bearing on future understanding of the beginnings of psychoses. The data now accumulating will have case record value later on. A paper entitled "The Questioned Intelligence Quotient", a study of the cases retested in the school clinic since its inception, received the second prize in the contest of the New England Society of Psychiatry.

#### TRAINING SCHOOL FOR NURSES

Ten graduates of the Boston State Hospital training school are now employed in the wards of the institution. The instruction of employees who are to care for the patients in our wards is one of the most important objects of the nurses' training schools, but it is also desirable to graduate nurses who are qualified to care for psychiatric cases in the community. Training schools for nurses in State hospitals are, however, becoming more and more difficult to maintain. At the present time there are no pupils in our training school and no applications are being received from persons who meet the minimum requirements for entrance. Work in other fields of nursing is more attractive to graduate nurses, and we find continued difficulty in retaining graduates of our own school. If the standards of our hospitals are to be maintained, we must have more graduate nurses. The systematic instruction of attendants, both male and female, is being carried on along the lines prescribed by the committee on training schools, representing the Department of Mental Diseases.



## OCCUPATIONS AND INDUSTRIES

The work of the occupational therapy department has been continued during the year under the direction of Miss Clara H. Offutt, head therapist. Of the 1,123 patients who have come under the department, 82 have improved enough to go home; 32 have been transferred to the industrial department; 4 have gone to other hospitals; 4 have been sent to the Occupational Therapy Center at Hopkinton; and 21 have died. The average daily number occupied in the male wards was 106, and in the female, 291, making a total daily average of 397. The highest number occupied on any one day was 498. The authorized personnel remains the same as in former years,—one head therapist and eight assistants. Four attendants are also assigned for duty in this department. Classes are conducted in class rooms and on most of the wards in both the East and the West Group. The men's acute and disturbed service has far outgrown the quarters assigned for work and a well equipped class room is very much needed. Work for women consists of weaving, sewing, braiding, needle work, knitting, crocheting, basketry, rake-knitting, rug making, and mending. During the year 3,006 garments and 775 pairs of hose have been mended in the women's service. The work for men consists of weaving, stencilling, basketry, rug making, rake-knitting, painting, toy making, and knotting key cord.

The "occupational therapy center for mental patients" at Hopkinton has come successfully through another year, and it is the belief of those most directly connected with it that we have now gathered together the kind of group which we have most desired since the enterprise began. More and more we are finding the type of woman who needs a comparatively short period for complete mental convalescence. This type has an optimistic outlook and preserves the true nature of the home in the sense for which it was first established, namely, that it should be a place of preparation for returning into the community. We have increased our capacity, which has always been small, and have, by introducing more beds, maintained a population of eleven patients throughout a good part of the year. These patients have come chiefly from the Boston State Hospital, but also we have had them from Worcester and Foxborough, with a marked interest on the part of Danvers, which is waiting for a vacancy. We have one patient who has been at the Center several times and, having made complete recovery and gone into the community, had during the year another episode of the manic-depressive type. Her first request upon emerging from her clouded state was that she might return to Hopkinton, which she did. She has since gone out and adjusted herself in the community, securing her own work and earning a good wage. This place has always meant to her one where she could get on her feet most speedily, and she has in addition a real affection for it. In another case we have a young girl who improved so greatly after a few months that her family was anxious to try her at home. She got along well there for a short time but her old difficulty and antagonism toward her family, which at first had apparently entirely disappeared, reappeared, and to her parents it seemed a godsend that she might return to the Center instead of going to the hospital. She has again improved and it is hoped that a longer period of residence will prove itself permanently beneficial, the next time she goes home. It is interesting to observe the different kinds of manual work carried on by the patients. There are some who have never handled a needle, and who, beginning with clumsy efforts, are amazed to find themselves producing most attractive articles in the course of a few weeks. They are helped by the infinite patience of the occupational therapist, and they are also stimulated to effort by the things that they see being put out by other patients. This individual attention that can be given our patients and the good-natured rivalry which exists among them are two of the things which distinguish the Center from the hospital. Most of the patients have some ability

to begin with, and they produce a large number of articles which are readily salable in some of the exclusive shops both in Boston and in summer resorts. Aside from this group, however, we have two or three who do really beautiful work of a high artistic quality. They are paid very good prices for what they produce, and do credit to any high class establishment. Everything that is made is turned out for the purpose of sale. Not only do the special shops take our products, but many private orders are received. It is surprising how effective in bringing in orders one well placed article may be. A certain type of underarm purse has circulated with great popularity among the young workers in the hospital, and their friends have clamored for others. In addition to these markets we may point with pride to our sale which took place in the spring of this year at the Old Grey House on Beacon Hill. There were many lovely things on display, ranging in price from a modest sum to a fairly large amount. In all, about \$200 was turned into the treasury from this sale. All this gives the patients an extra interest in life, as it not only brings them spending money, but in some cases enables them to pay part of their board at the Center. Moreover, it also puts them in touch with the outside world so that they are as keenly alive to the possibilities on the day of the sale as the workers who have been engaged with them. There has been marked absence of physical illness on the part of the patients beyond the ordinary type of colds. Not only this, but the improvement of physical health in some cases, has been quite remarkable. All the patients go on walks, which they enjoy, and there is never any need of urging them to go. During the summer it was a real pleasure to observe them returning, carrying full pails of berries and laughing and chatting, with all the sense of gaiety and freedom belonging to normal people. There are some who particularly enjoy the bright colors of fall which are so abundantly displayed in this neighborhood, and come home with gorgeous foliage, with which they trim the house. On birthdays, holidays, and so forth, there are always parties which all take part in preparing for, like members of one family. Mrs. L. Vernon Briggs has maintained her profound interest in the work as generously as ever. She has continued to pay the salary of the occupational therapist. During the summer, when she was abroad, she picked up many new ideas for the patients to carry out, so that we have had the benefit of something quite novel for a place of this sort. The Permanent Charity Fund has again voted to pay \$500 for the coming year. The boarding end of the work of the Center still remains under the care of Mrs. Gay, and Miss Alberta Grover is the new occupational therapist, who has been with us through the year. The supervisory committee consists of Mrs. L. Vernon Briggs, Mrs. Sydney Dreyfus, Mrs. Horatio Lamb, Mrs. Henry Tudor, Mrs. Douglas A. Thom, Miss Mildred Bradley, and Mr. William F. Whittemore, treasurer. The head social worker of the hospital, Miss Florence E. Armstrong, is the chairman of the committee.

The work of the industrial room for women has been carried on under the continued direction of Mrs. Madge B. Richardson. This consists of basketry, rug making, weaving, lace making, embroidery, knitting, crocheting, sewing, mending, etc. The estimated value of the articles produced in this department during the year is about \$8,000. The industrial work for men has been carried on under the direction of Mr. James F. Hurley. This is done entirely in the basement of the B Building in the West Group, and includes shoe repairing and various other repair work, the manufacture of several kinds of brushes, brooms, coat hangers, hats, and numerous other articles. The value of the articles produced during the year is estimated at \$11,000. The articles produced in the occupational and industrial departments of the hospital for the year represented an estimated total valuation of \$19,500.

## AGRICULTURAL ACTIVITIES FOR THE YEAR

Mr. James V. David, head farmer, had charge of the agricultural work up to the time of his resignation on October 26, 1927. No successor has as yet been appointed. A total of 138 acres was under cultivation. This consisted of 47 acres devoted to gardening, in addition to 87 acres of meadowland, and 4 acres of orchards and small fruits, no change having been made from the preceding year. The estimated value of farm products for the year was \$14,432.49.

## FINANCIAL STATEMENT

The maintenance appropriation for the year was \$805,230, in addition to which \$28,821.76 was brought forward from the preceding year. The sum of \$1,000 was transferred to the Boston Psychopathic Hospital. This made the total amount available \$833,051.76.

	Amount Expended	Per Capita	Percentage of Total
Personal Services.....	\$389,266.88	\$179.667	49.734
Travel, Transportation and office expenses.....	7,288.00	3.364	.931
Food.....	175,928.78	81.200	22.478
Clothing and materials.....	30,210.56	13.944	3.860
Furnishings and household supplies.....	43,575.35	20.112	5.568
Medical and general care.....	24,735.76	11.417	3.160
Religious instruction.....	2,079.98	.960	.266
Heat, light and power.....	63,711.70	29.406	8.140
Farm.....	6,111.54	2.821	.781
Garage, stables and grounds.....	5,917.15	2.731	.756
Repairs, ordinary.....	18,455.47	8.518	2.358
Repairs and renewals.....	15,406.01	7.111	1.968
Total.....	\$782,687.18	\$361.251	100.00

Based on the average daily population of the hospital (2,166.60) the per capita cost of maintenance for the year was \$361.251, or \$6.947 per week. The per capita cost for the year 1926 was \$355.716, or \$6.8405 per week. The type of patients cared for in this institution is an important factor in keeping up the cost of maintenance, about one-third of the population being of the infirmary class, and a large percentage bed patients. The lack of agricultural facilities and the absence of a dairy constitute a serious handicap. A large item in the cost of maintenance is the amount required for repairs to old buildings erected by the City of Boston many years ago. The old ward buildings, being made up of small units and consisting largely of single rooms, require a greater number of employees and more supervision than would otherwise be necessary. No buildings designed for purely custodial patients in considerable numbers have ever been erected at this institution.

## GENERAL OPERATIONS FOR THE YEAR.

A summary of the general activities of the hospital during the year just ended leaves very little more to be reported. Our efforts have been directed principally towards the maintenance of a stable personnel and the keeping of the various buildings in suitable repair. Our activities have, of course, been limited by the funds made available by the legislature.

The entertainment of patients has been provided for along the usual lines. Loud speakers in the various wards in the East and West Groups have rendered radio service available to the greater number of our patients and this form of entertainment has been very highly appreciated by them. Motion picture shows and dances have been continued in accordance with the custom of former years. The Boston Philharmonic Ensemble presented a very popular concert during the Christmas holidays. A band concert was given at the West Group on June 17th by members of the Boston Musicians' Protective Association. This entertainment was very much enjoyed by the patients. Refreshments were served in the West Group field, followed by a ball game.

Religious services, both Protestant and Catholic, have been held regularly throughout the year, and the wards have been visited as usual by the priest, Rev. E. A. Gallagher, and the rabbi, Rev. Moses L. Sedar.

Routine visits and inspections have been made from time to time by the Commissioner of Mental Diseases and his various representatives, by the Lieutenant Governor and the Executive Council, the Committee on Public Institutions, and the various agents of the Department of Administration and Finance. The hospital was visited on March 10th by a group of physicians representing various countries, who were taking a course of instruction in Public Health under the auspices of the Rockefeller Foundation. A meeting of the Hospital Trustees' Association was held at the East Group on Thursday, May 26th.

The various changes deemed desirable by the Department of Mental Diseases for the purpose of fire prevention have been continued during the year. These alterations were made possible by an appropriation provided for in Chapter 347 of the Acts of 1925. The work completed during the year and not previously reported was as follows: Kalamein doors were installed in the East Group in the basements of the A, C, and D buildings, in the corridors leading from the administration building to the chapel, and from the chapel to the A Building, and in the laundry building; and in the West Group in the administration building, in A and B buildings and in the attendants' cottage. Elaborate fire escapes have been installed on the farmers' cottage in the West Group.

The painting completed during the year was as follows: Interior of the West A Building and the West H Building; corridors adjoining the administration building in the West Group; interior of the West Group kitchen and dining room building; exterior of the nurses' home in the West Group; old serving room adjoining the chapel in the East Group; visitors' room in the basement of the West F Building; upper floor of the East B Building; stairways and part of the first floor of the East C Building; exterior of the administration building in the East Group completed; woodwork on the exterior of the nurses' home in the East Group; office of the superintendent of nurses, East Group administration building.

A new cement floor was installed in the basement of the West H Building.

A new foundation has been installed under the barn near the piggery. This is the building which was moved from the West Group some years ago. Another old barn building has been made over into a storehouse for wagons, etc. The old icehouse near the piggery has been remodelled and is now used for storage purposes.

A surface drain in the rear of the East B Building was relaid during the summer.

All of the old wooden steps in the rear of the various ward buildings in the West Group were removed during the year and replaced by concrete structures.

The roofs of the A and B buildings in the East Group and the B and C buildings in the West Group were extensively repaired during the summer; also the roof of the power house.

The old wooden shingle roof on the old farm house in the West Group was replaced by an asphalt roof. Extensive repairs were made on this building during the summer.

A new Monel-Stuart washing machine was installed in the laundry during the year.

A new hot water heater was installed in the basement of the East G Building.

Six new food wagons were purchased for the West Group kitchen and dining room building. This has greatly facilitated the service of hot food in the various dining rooms in that Group.

Quite a little grading has been done during the year, and we are still engaged in endeavoring to remove the hill at the corner of Canterbury and Morton streets.

I regret to report the death of Mr. Hubbard C. Packard, who had been the

hospital mason for many years. Death occurred on January 11, 1927, as the result of a stroke of paralysis.

I regret to report that Mr. Rollin F. Knapp, the hospital meat cutter, dropped dead on July 22nd, while in the active performance of his duties.

A small laboratory has been fitted up in the West F Building by the Department of Mental Diseases for the purpose of making studies of metabolism in the treatment of cases of dementia praecox, general paralysis, etc.

The work of filling in the area west of Morton Street and north of the Canterbury Branch of Stony Brook has been completed and the contractor is now dumping ashes on the land south of Stony Brook and west of Morton Street.

Work has been commenced on a small brick incinerator in the rear of the power house in the East Group.

The channel of the Canterbury Branch of Stony Brook, which runs through the West Group grounds and which was cleaned out by the City of Boston during the summer of 1926, is now obstructed again to such an extent that the grounds are occasionally overflowed following a heavy rain. The Commission which investigated the necessity of the construction of a covered channel to accommodate the waters of Stony Brook and which reported in full in House Document No. 323, filed on December 12, 1925, recommended "the progressive construction of covered channels of Stony Brook and its tributaries, year by year, until the flooded areas are relieved." Nothing has been done as yet towards relieving this situation.

#### THE FIRE MENACE

Attention should again be called to the urgent necessity of carrying out the recommendations made by the Board of Trustees of this hospital in 1925, as follows:

"1. Removing the old wooden administration building in the East Group, constituting as it does a distinct fire menace as a result of the existence of wooden stairways running from the basement to the attic, the presence of exposed electric wires and wires in wooden conduits in various parts of the building, and the necessity of housing a considerable number of persons in the attic,—a place where their lives would be placed in jeopardy by a serious fire;

"2. Providing for the removal of the old barn located a few hundred yards from the Administration building above referred to, and containing a large amount of hay;

"3. Removing the other wooden buildings and sheds in this same neighborhood

"4. Installing sprinklers and such other fire protection as may be needed to insure the safety of the six hundred and more patients in the old non-fireproof stucco buildings until such time as these buildings can be replaced by fireproof structures;

"5. Removing the old wooden farm building located in the West Group and housing in the neighborhood of twenty employees, the Building Inspector for the Department of Public Safety having refused to certify this structure for occupancy;

"6. The prompt adoption of such other measures for fire protection as may be deemed necessary by the proper authorities."

This matter was commented on, as has already been reported, by the Fire Commissioner of the City of Boston, who recommended:

"That all the old buildings, wooden and stucco covered, should be demolished and buildings of 1st class fireproof construction be erected in their stead." \* \* \* \*

"These recommendations which may appear extensive, are an urgent necessity and based on the nature of the occupancy, and the character of the construction which is hardly fit for persons of normal physical and mental condition."

#### THE FUTURE DEVELOPMENT OF THE HOSPITAL.

Attention should be called to the fact that this hospital, which is intended to

provide for two thousand patients; has no centrally located administration building and no building ever erected exclusively for that purpose, no centrally located assembly hall large enough to provide for the needs of the whole hospital, no laboratory building, no industrial building, no building suitable for farm and other outside employees, no separate building for the care of tubercular patients, and no reception building for the admission of new cases.

The provision for accommodations for housing employees is very inadequate. The only building we have at this time for male ward employees is an attendants' cottage in the West Group, which takes care of only forty persons. Sixteen men are housed in the third floor of the West C Building, in quarters which are not fireproof and are highly undesirable; twenty men are housed in the third floor of the D Building, where they have accommodations similar to those in the C Building; twenty-four male employees are housed in the wards of the C and D buildings in close proximity to the patients and in rooms which cannot be under proper supervision; eight men are also housed in the West G Building, which is our building for disturbed patients. At the present time we have not rooms enough to accommodate our full number of male employees without using rooms designed originally for the care of patients. In all, between eighty and ninety employees are housed in attics which are not suitable for such purposes,—an arrangement which adds materially to the difficulty of proper protection from fires.

We are very badly in need of a permanent roadway between the East and West groups, and the completion of the roads leading to the various ward buildings. It would be very desirable to build a fence around the hospital grounds. The absence of any such protection has resulted in a serious interference with the activities of the hospital and in a considerable property loss.

Respectfully submitted,

NOVEMBER 30, 1927.

JAMES V. MAY, Superintendent.

VALUATION  
November 30, 1927  
REAL ESTATE

Land, 233 acres.....	\$609,508.00
Buildings.....	2,614,071.83
	<hr/>
	\$3,223,579.83

PERSONAL PROPERTY

Travel, Transportation and Office Expenses.....	\$550.00
Food.....	20,136.23
Clothing and Materials.....	29,516.26
Furnishings and Household Supplies.....	249,214.19
Medical and General Care.....	6,910.79
Heat, Light and Power.....	7,548.65
Farm.....	10,844.53
Garage, Stables and Grounds.....	7,794.80
Repairs.....	12,401.90
	<hr/>
	\$344,917.35

SUMMARY

Real Estate.....	\$3,223,579.83
Personal Property.....	344,917.35
	<hr/>
	\$3,568,497.18

TREASURER'S REPORT

*To the Department of Mental Diseases:*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1927.

CASH ACCOUNT

*Receipts*

<i>Income</i>	
Board of Patients:	
Reimbursing.....	\$117,461.78
	<hr/>
	\$117,461.78
Personal Services:	
Reimbursement from Board of Retirement.....	281.66
Sales:	
Travel, transportation and office expenses.....	\$159.79
Food.....	232.99
Clothing and materials.....	9.98
Furnishings and household supplies.....	41.82
Medical and general care.....	-
Heat, light and power.....	-
Farm:	
Pigs and hogs.....	18.65
Repairs, ordinary.....	62.72
Repairs and renewals.....	50.00
Total sales.....	<hr/>
	\$575.95
Miscellaneous:	
Interest on bank balances.....	\$649.81
Rent.....	60.00
	<hr/>
	\$709.81
TOTAL INCOME.....	<hr/>
	\$119,029.20

## MAINTENANCE

Balance from previous year, brought forward.....		\$28,821.76
Appropriations, current year.....		805,230.00
Total.....		\$834,051.76
Transfer to Boston Psychopathic Hospital.....	\$1,000.00	
Expenses (as analyzed below).....	782,687.18	
		\$783,687.18
Balance reverting to Treasury of Commonwealth.....		\$50,364.58

*Analysis of Expenses*

Personal Services.....	\$389,266.88
Religious Instruction.....	2,079.98
Travel, Transportation and Office Expenses.....	7,288.00
Food.....	175,928.78
Clothing and Materials.....	30,210.56
Furnishings and Household Supplies.....	43,575.35
Medical and General Care.....	24,735.76
Heat, Light and Power.....	63,711.70
Farm.....	6,111.54
Garage, Stable and Grounds.....	5,917.15
Repairs, Ordinary.....	18,455.47
Repairs and Renewals.....	15,406.01
Total expenses for Maintenance.....	\$782,687.18

## SPECIAL APPROPRIATIONS

Balance December 1, 1926.....	\$16,350.28
Appropriations for current year.....	4,000.00
Total.....	\$20,350.28
Expended during the year (see statement below).....	\$17,520.36
Reverting to Treasury of Commonwealth.....	2,651.92
	\$20,172.28
Balance November 30, 1927, carried to next year.....	178.00

OBJECT	Act or Resolve	Whole Amount	Expended During Fiscal Year	Total Expended To Date	Balance at End of Year
Dining Room, East Group.....	211-1919 629-1920	\$152,000.00		\$150,579.32	*\$1,420.68
Fire Protection, 1925.....	347-1925	18,000.00	\$13,698.36	16,768.76	1,231.24*
Food Trucks.....	138-1927	4,000.00	3,822.00	3,822.00	178.00
		\$174,000.00	\$17,520.36	\$171,170.08	\$2,829.92

Balance reverting to Treasury of the Commonwealth during year (mark item with *).....	*\$2,651.92
Balance carried to next year.....	178.00
Total as above.....	\$2,829.92

## PER CAPITA

During the year the average number of inmates has been 2,166.6.  
 Total cost for maintenance, \$782,687.18.  
 Equal to a weekly per capita cost of \$6.9471 (52 weeks to year)  
 Receipt from sales, \$575.95.  
 Equal to a weekly per capita of \$.00511.  
 All other institution receipts, \$118,453.25.  
 Equal to a weekly per capita of \$1.05139.  
 Net weekly per capita \$5.8906.

Respectfully submitted,

ADELINE J. LEARY, *Treasurer.*



## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION  
PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES.

TABLE 1. *General Information.*

Data correct at end of hospital year, November 30, 1927.

1. Date of opening as a hospital for mental diseases: December 11, 1839.
2. Type of hospital: State, county, endowed private, or unendowed private: State (Since December 1, 1908)
3. Hospital plant:  
Value of hospital property:  
Real estate, including buildings..... \$3,223,579.83  
Personal property..... 344,917.35  
Total..... \$3,568,497.18  
Total acreage of hospital property owned: (Includes grounds, farm and garden and sites occupied by buildings.) 233.074 acres.  
Additional acreage rented: None.  
Total acreage under cultivation during previous year: 138 acres.
4. Officers and Employees: September 30, 1927

	ACTUALLY IN SERVICE AT END OF YEAR			VACANCIES AT END OF YEAR		
	M.	F.	T.	M.	F.	T.
Superintendents.....	1	—	1	—	—	—
Assistant physicians.....	6	4½	10½	3	½	3½
Medical internes.....	—	—	—	—	—	—
Clinical assistants.....	—	—	—	—	—	—
Total physicians.....	7	4½	11½	3	½	3½
Stewards.....	1	—	1	—	—	—
Resident dentists.....	1	—	1	—	—	—
Pharmacists.....	1	—	1	—	—	—
Graduate nurses.....	—	13	13	—	—	—
Other nurses and attendants.....	108	129	237	12	5	17
Occupational therapists.....	1	6	7	—	2	2
Social workers.....	—	4	4	—	—	—
All other officers and employees.....	80	78	158	6½	2	8½
Total officers and employees.....	199	234½	433½	21½	9½	31

5. Census of Patient Population at end of the year:

	ACTUALLY IN HOSPITAL			ABSENT FROM HOSPITAL BUT STILL ON BOOKS		
	M.	F.	T.	M.	F.	T.
White						
Insane*.....	916	1218	2134	84	121	205
Total.....	916	1218	2134	84	121	205
Other Races						
Insane*.....	19	29	48	1	3	4
Total.....	19	29	48	1	3	4
Grand Total.....	935	1247	2182	85	124	209

\*In case a patient belongs to more than one group, he should be counted in the group first mentioned of those to which he may be properly assigned. For example, if a patient is both insane and epileptic he should be counted as insane.

	M.	F.	T.
6. Patients under treatment in occupational therapy classes, including physical training on date of report.....	65	203	268
7. Other patients employed in general work of hospital on date of report.....	462	406	868
8. Average daily number of all patients actually in hospital during year.....	913.16	1234.87	2,148.03
9. Voluntary patients admitted during year.....	—	—	—
10. Persons given advice or treatment in out-patient clinics during year.....	—	—	—

(No person should be counted more than once regardless of number of visits made during the year.)

TABLE 2. *Financial Statement.*

See treasurer's report for data requested under this table.

TABLE 3. *Movement of Population for the Year ending September 30, 1927.*

	Insane			Temporary Care			Total	
	M.	F.	T.	M.	F.	T.	M.	F.
Patients on books at beginning of institution year.....	995	1,350	2,345	10	5	15	1,005	1,355
Admissions during the year:								
First Admissions.....	184	*216	*400	32	21	53	216	*237
Readmissions.....	†34	†54	†88	†40	†13	†53	†74	†67
Transferred from other institutions for mental diseases...	15	11	26	—	—	—	15	11
Total received during the year.....	233	281	514	72	34	106	305	315
Total under treatment during the year.....	1,228	1,631	2,859	82	39	121	1,310	1,670
Discharged from books during the year:								
As recovered.....	27	29	56	5	1	6	32	30
As improved.....	62	68	130	9	5	14	71	73
As unimproved.....	11	27	38	21	17	38	32	44
As without psychosis.....	4	1	5	15	7	22	19	8
Transferred to other hospitals for mental diseases.....	1	8	9	—	—	—	1	8
Died during the year.....	129	132	261	4	2	6	133	134
Status changed from temporary care of preceding year to Sec. 51, committed.....	—	—	—	1	2	3	1	2
Status changed from Sec. 51 of preceding year to Sec. 100, temporary care.....	1	—	1	—	—	—	1	—
Total discharged and died.....	235	265	500	55	34	89	290	299
Patients remaining on books at end of institution year.....	993	1,366	2,359	27	5	32	1,020	1,371

\* This includes 1 woman committed from temporary care of preceding year.

† This includes 1 man and 1 woman committed from temporary care of preceding year.

‡ This includes 1 man committed during preceding year, status changed to Sec. 100, temporary care.

TABLE 4. *Nativity of First Admissions and of Parents of First Admissions for the Year Ending September 30, 1927.*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States.....	100	109	209	45	36	33	38	42	30
Austria.....	-	2	2	-	-	-	1	1	1
Canada*.....	18	29	47	25	20	19	31	35	26
Denmark.....	-	-	-	1	-	-	-	-	-
England.....	5	2	7	8	10	8	6	3	2
France.....	-	-	-	-	-	-	1	-	-
Germany.....	3	1	4	5	6	4	4	5	4
Hungary.....	-	-	-	-	-	-	1	1	1
Ireland.....	26	51	77	54	61	50	96	90	86
Italy.....	18	12	30	19	19	19	13	13	13
Norway.....	-	-	-	1	1	1	-	-	-
Poland.....	1	-	1	1	1	1	-	-	-
Portugal.....	2	2	4	2	2	2	2	2	2
Roumania.....	1	-	1	1	1	1	-	-	-
Russia.....	3	2	5	4	5	4	5	5	5
Scotland.....	-	3	3	3	3	2	8	9	6
Spain.....	-	-	-	-	-	-	1	-	-
Sweden.....	2	1	3	2	2	2	2	2	2
Turkey in Asia.....	1	1	2	1	1	1	1	1	1
West Indies†.....	1	-	1	1	1	1	-	-	-
Other Countries.....	3	1	4	3	3	3	1	1	1
Unascertained.....	-	-	-	8	12	8	6	6	4
Total.....	184	216	400	184	184	159	216	216	185

\*Includes Newfoundland

†Except Cuba and Porto Rico



TABLE 5. *Citizenship of First Admissions for the Year Ending September 30, 1927.*

	M.	F.	T.
Citizens by birth.....	100	109	209
Citizens by naturalization.....	44	45	89
Aliens.....	29	53	82
Citizenship unascertained.....	11	9	20
Total.....	184	216	400

TABLE 6. *Psychoses of First Admissions for the Year Ending September 30, 1927.*

PSYCHOSES	M.	F.	T.	M.	F.	T. c
1. Traumatic psychoses.....				—	—	—
2. Senile psychoses.....				13	49	62
3. Psychoses with cerebral arteriosclerosis.....				54	44	98
4. General paralysis.....				22	6	28
5. Psychoses with cerebral syphilis.....				1	4	5
6. Psychoses with Huntington's chorea.....				—	2	2
7. Psychoses with brain tumor.....				—	—	—
8. Psychoses with other brain or nervous diseases, total* Other diseases.....	3	—	3	3	—	3
9. Alcoholic psychoses, total..... Delirium tremens..... Korsakow's psychosis..... Acute hallucinosis..... Other types, acute or chronic.....	14	6	20	14	6	20
10. Psychoses due to drugs and other exogenous toxins, total..... Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined.....	2	—	2	2	—	2
11. Psychoses with pellagra.....				—	—	—
12. Psychoses with other somatic diseases, total..... Delirium with infectious diseases..... Cardio-renal diseases..... Other diseases or conditions.....	10	8	18	10	8	18
13. Manic-depressive psychoses, total..... Manic type..... Depressive type..... Other types.....	18	33	51	18	33	51
14. Involution melancholia.....				5	5	10
15. Dementia praecox (schizophrenia).....				14	14	28
16. Paranoia and paranoid conditions.....				12	26	38
17. Epileptic psychoses.....				2	6	8
18. Psychoneuroses and neuroses, total..... Psychasthenic type (anxiety and obsessive forms)..... Neurasthenic type.....	1	1	2	1	2	3
19. Psychoses with psychopathic personality.....				1	—	1
20. Psychoses with mental deficiency.....				6	5	11
21. Undiagnosed psychoses.....				2	6	8
22. Without psychosis, total..... Psychopathic personality without psychosis..... Mental deficiency without psychosis..... Others.....	4	—	4	4	—	4
Total.....	184	216	400	184	216	400

\* Give total for each numbered group, and, so far as possible, the number in each subdivision.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1927.*

RACE	Total			Traumatic			Senile			With cerebral arterio-sclerosis			General paralysis			With cerebral syphilis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black).....	10	12	22	-	-	-	1	2	3	3	4	7	1	1	2	-	-	-
Armenian.....	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
English.....	9	16	25	-	-	-	-	1	1	5	2	7	1	1	2	-	1	1
French.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German.....	5	4	9	-	-	-	-	2	2	3	-	3	-	-	-	-	-	-
Hebrew.....	5	6	11	-	-	-	-	1	1	-	-	-	1	-	1	-	1	1
Irish.....	54	109	163	-	-	-	4	21	25	19	26	45	3	-	3	-	-	-
Italian*.....	21	13	34	-	-	-	2	1	3	2	1	3	4	2	6	-	-	-
Lithuanian.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magyar.....	1	1	2	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Portuguese.....	2	2	4	-	-	-	2	-	2	-	1	1	-	1	1	-	-	-
Scandinavian†.....	3	2	5	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Scotch.....	1	8	9	-	-	-	-	2	2	1	1	2	-	-	-	-	-	-
Slavonic†.....	2	-	2	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Turkish.....	1	1	2	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-
Mixed.....	68	38	106	-	-	-	3	15	18	19	9	28	11	1	12	1	2	3
Race unasc't'd.....	1	2	3	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-
Total.....	184	216	400	-	-	-	13	49	62	54	44	98	22	6	28	1	4	5

\*Includes "North" and "South".

†Norwegians, Danes and Swedes

†Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses for the Year Ending September 30, 1927.—Continued.*

RACE	With Huntington's chorea			With brain tumor			With other brain or nervous diseases			Alcoholic			Due to drugs and other exogenous toxins			With pellagra		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black).....	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Armenian.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English.....	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-
French.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German.....	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Hebrew.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Irish.....	-	2	2	-	-	-	-	-	-	5	5	10	1	-	1	-	-	-
Italian*.....	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-
Lithuanian.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magyar.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian†.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scotch.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic†.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkish.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed.....	-	-	-	-	-	-	3	-	3	4	-	4	1	-	1	-	-	-
Race unascertained.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total.....	-	2	2	-	-	-	3	-	3	14	6	20	2	-	2	-	-	-

\*Includes "North" and "South".

†Norwegians, Danes and Swedes

†Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1927.—Continued.*

RACE	With other somatic diseases			Manic- depressive			Involution melan- cholia			Dementia praecox			Paranoia and paranoid conditions			Epileptic psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	3	2	5	—	—	—	1	—	1	—	1	1	—	—	—
Armenian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	1	1	—	2	2	1	1	2	—	1	1	—	5	5	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	1	1	1	—	1	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	3	2	5	—	—	—	—	1	1	—	—	—	—	—	—
Irish	3	4	7	1	19	20	2	3	5	4	11	15	5	11	16	—	4	4
Italian*	1	—	1	6	4	10	—	1	1	1	—	1	2	1	3	—	1	1
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Magyar	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian†	—	—	—	—	—	—	—	—	—	1	—	1	—	2	2	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3	—	—	—
Slavonic‡	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	4	3	7	4	3	7	1	—	1	7	1	8	5	2	7	2	—	2
Race unasc't'd	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	10	8	18	18	33	51	5	5	10	14	14	28	12	26	33	2	6	8

\*Includes "North" and "South"

†Norwegians, Danes and Swedes.

‡Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1927.—Concluded.*

RACE	Psycho- neuroses and neuroses			With psycho- pathic personality			With mental deficiency			Un- diagnosed psychoses			Without psychosis		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
African (black)	—	—	—	—	—	—	—	—	—	—	2	2	—	—	—
Armenian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Hebrew	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Irish	—	1	1	—	—	—	4	1	5	—	1	1	3	—	3
Italian*	—	—	—	—	—	—	—	2	2	1	—	1	—	—	—
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Magyar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian†	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Scotch	—	—	—	—	—	—	—	1	1	—	1	1	—	—	—
Slavonic‡	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	1	1	2	—	—	—	1	1	2	1	—	1	—	—	—
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1	2	3	1	—	1	6	5	11	2	6	8	4	—	4

\*Include "North" and "South".

†Norwegians, Danes and Swedes.

‡Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses for the Year Ending September 30, 1927.*

PSYCHOSES	Total			Under 15 years			15—19 Years			20—24 years			25—29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile.....	13	49	62	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis.....	54	44	98	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis.....	22	6	28	—	—	—	—	—	—	—	—	—	1	1	—
5. With cerebral syphilis.....	1	4	5	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea.....	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.....	3	—	3	—	—	—	1	—	1	2	—	2	—	—	—
9. Alcoholic.....	14	6	20	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins.....	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra.....	10	8	18	—	—	—	1	1	—	—	—	—	—	—	—
12. With other somatic diseases.....	18	33	51	—	—	—	4	1	5	3	4	7	1	5	6
13. Manic-depressive.....	5	5	10	—	—	—	—	—	—	—	—	—	—	—	—
14. Involution melancholia.....	14	14	28	—	—	—	2	—	2	3	1	4	3	1	4
15. Dementia praecox.....	12	26	38	—	—	—	—	—	—	—	—	—	—	—	—
16. Paranoia and paranoid conditions.....	2	6	8	—	—	—	—	—	—	2	1	3	—	1	1
17. Epileptic psychoses.....	1	2	3	—	—	—	—	—	—	—	—	—	1	—	1
18. Psychoneuroses and neuroses.....	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality.....	6	5	11	—	—	—	1	2	3	2	—	2	1	1	2
20. With mental deficiency.....	2	6	8	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses.....	4	—	4	—	—	—	—	—	—	—	—	—	1	—	1
22. Without psychosis.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total.....	184	216	400	—	—	—	8	4	12	12	6	18	7	9	16

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1927.—Continued.*

PSYCHOSES	30—34 years			35—39 years			40—44 years			45—49 years			50—54 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis.....	—	—	—	—	—	—	—	—	—	1	2	3	1	3	4
4. General paralysis.....	1	—	1	1	1	2	4	—	4	7	2	9	4	—	4
5. With cerebral syphilis.....	—	—	—	—	—	—	1	1	—	1	1	2	—	1	1
6. With Huntington's chorea.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic.....	2	1	3	1	1	2	3	—	3	2	3	5	2	1	3
10. Due to drugs and exogenous toxins.....	—	—	—	—	—	—	2	—	2	—	—	—	—	—	—
11. With pellagra.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases.....	1	—	1	2	—	2	3	—	3	—	1	1	2	4	6
13. Manic-depressive.....	1	5	6	2	2	4	2	2	4	4	6	10	1	4	5
14. Involution melancholia.....	—	—	—	—	—	—	1	1	2	1	2	3	1	1	2
15. Dementia praecox.....	2	1	3	1	2	3	1	3	4	—	2	2	—	3	3
16. Paranoia and paranoid conditions.....	2	1	3	3	2	5	1	6	7	—	4	4	2	7	9
17. Epileptic psychoses.....	—	—	—	—	1	1	—	—	—	—	1	1	—	—	—
18. Psychoneuroses and neuroses.....	—	1	1	—	—	—	—	—	—	—	—	—	—	1	1
19. With psychopathic personality.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency.....	—	1	1	—	1	1	1	—	1	1	—	1	—	—	—
21. Undiagnosed psychoses.....	1	—	1	—	—	—	—	2	2	—	1	1	—	1	1
22. Without psychosis.....	—	—	—	—	—	—	1	—	1	—	—	—	1	—	1
Total.....	10	10	20	10	10	20	19	15	34	17	25	42	14	26	40



TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1927.—Concluded.*

PSYCHOSES	55—59 years			60—64 years			65—69 years			70 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile.....	1	1	2	—	4	4	1	9	10	11	35	46
3. With cerebral arteriosclerosis.....	5	3	8	14	8	22	12	10	22	21	18	39
4. General paralysis.....	3	—	3	—	—	—	2	2	4	—	—	—
5. With cerebral syphilis.....	—	1	1	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea.....	—	1	1	—	—	—	—	1	1	—	—	—
7. With brain tumor.....	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.....	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic.....	2	—	2	1	—	1	—	—	—	1	—	1
10. Due to drugs and other exogenous toxins.....	—	—	—	—	—	—	—	—	—	—	—	—
12. With pellagra.....	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases.....	1	—	1	1	1	2	—	—	—	—	1	1
13. Manic-depressive.....	—	3	3	—	—	—	—	1	1	—	—	—
14. Involution melancholia.....	2	1	3	—	—	—	—	—	—	—	—	—
15. Dementia praecox.....	—	1	1	2	—	2	—	—	—	—	—	—
16. Paranoia and paranoid conditions.....	3	2	5	1	3	4	—	1	1	—	—	—
17. Epileptic psychoses.....	—	1	1	—	1	1	—	—	—	—	—	—
18. Psychoneuroses and neuroses.....	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality.....	—	—	—	—	—	—	1	—	1	—	—	—
20. With mental deficiency.....	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses.....	1	—	1	—	1	1	—	—	—	—	1	1
22. Without psychosis.....	1	—	1	—	—	—	—	—	—	—	—	—
Total.....	19	14	33	19	18	37	16	24	40	33	55	88

TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1927.

PSYCHOSES		Total		Illiterate		Reads and Writes*		Common School		High School		College		Unascertained	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	13	49	62	3	10	13	4	4	8	—	6	—	—	—	—
2. Senile.....	54	44	98	2	8	10	5	5	10	—	6	—	1	2	3
3. With cerebral arteriosclerosis.....	22	6	28	2	1	3	3	—	3	—	2	—	—	2	8
4. General paralysis.....	1	4	5	—	—	—	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis.....	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea.....	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.....	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic.....	14	6	20	1	2	3	2	1	3	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins.....	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases.....	10	8	18	—	—	—	1	—	—	—	—	—	—	—	—
13. Manic-depressive.....	18	33	51	—	3	3	2	2	4	—	1	—	—	—	—
14. Involuntia melancholia.....	5	5	10	—	1	1	1	1	1	—	—	—	—	—	—
15. Dementia praecox.....	14	14	28	—	1	1	1	1	1	—	—	—	—	—	—
16. Paranoia and paranoid conditions.....	12	26	38	1	2	3	1	1	2	—	—	—	—	—	—
17. Epileptic psychoses.....	2	6	8	1	2	3	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses.....	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality.....	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency.....	6	5	11	—	1	1	1	1	2	—	—	—	—	—	—
21. Undiagnosed psychoses.....	2	6	8	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis.....	4	—	4	—	—	—	—	—	—	—	—	—	—	—	—
Total.....	184	216	400	10	33	43	20	19	39	22	25	47	4	11	6
															17

\*Includes those who did not complete fourth grade in school.

TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1927.*

PSYCHOSES	Total			Urban			Rural			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile.....	13	49	62	13	49	62	—	—	—	—	—	—
2. With cerebral arteriosclerosis.....	54	44	98	54	44	98	—	—	—	—	—	—
4. General paralysis.....	22	6	28	22	6	28	—	—	—	—	—	—
5. With cerebral syphilis.....	1	4	5	1	4	5	—	—	—	—	—	—
6. With Huntington's chorea.....	—	2	2	—	2	2	—	—	—	—	—	—
7. With brain tumor.....	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.....	3	—	3	3	—	3	—	—	—	—	—	—
9. Alcoholic.....	14	6	20	14	6	20	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins.....	2	—	2	2	—	2	—	—	—	—	—	—
11. With pellagra.....	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases.....	10	8	18	10	8	18	—	—	—	—	—	—
13. Manic-depressive.....	18	33	51	18	33	51	—	—	—	—	—	—
14. Involution melancholia.....	5	5	10	5	5	10	—	—	—	—	—	—
14. Dementia praecox.....	14	14	28	14	14	28	—	—	—	—	—	—
16. Paranoia and paranoid conditions.....	12	26	38	12	26	38	—	—	—	—	—	—
17. Epileptic psychoses.....	2	6	8	2	6	8	—	—	—	—	—	—
18. Psychoneuroses and neuroses.....	1	2	3	1	2	3	—	—	—	—	—	—
19. With psychopathic personality.....	1	—	1	1	—	1	—	—	—	—	—	—
20. With mental deficiency.....	6	5	11	6	5	11	—	—	—	—	—	—
21. Undiagnosed psychoses.....	2	6	8	2	6	8	—	—	—	—	—	—
22. Without psychosis.....	4	—	4	4	—	4	—	—	—	—	—	—
Total.....	184	216	400	184	216	400	0	0	0	0	0	0

TABLE 11. *Economic Conditions of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1927.*

PSYCHOSES	Total			Dependent			Marginal			Comfortable			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile.....	13	49	62	3	10	13	9	35	44	1	3	4	—	1	1
3. With cerebral arteriosclerosis.....	54	44	98	7	9	16	43	29	72	3	3	6	1	3	4
4. General paralysis.....	22	6	28	—	4	4	22	2	24	—	—	—	—	—	—
5. With cerebral syphilis.....	1	4	5	—	2	2	1	2	3	—	—	—	—	—	—
6. With Huntington's chorea.....	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—
7. With brain tumor.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.....	3	—	3	—	—	—	3	—	3	—	—	—	—	—	—
9. Alcoholic.....	14	6	20	1	1	2	13	5	18	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins.....	2	—	2	—	—	—	2	—	2	—	—	—	—	—	—
11. With pellagra.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases.....	10	8	18	—	2	2	9	5	14	—	—	—	—	—	—
13. Manic-depressive.....	18	33	51	—	—	—	17	31	48	2	2	—	1	—	1
14. Involution melancholia.....	5	5	10	—	—	—	5	5	10	—	—	—	—	—	—
14. Dementia praecox.....	14	14	28	4	3	7	10	11	21	—	—	—	—	—	—
16. Paranoia and paranoid conditions.....	12	26	38	—	1	1	12	24	36	—	1	1	—	—	—
17. Epileptic psychoses.....	2	6	8	—	2	2	2	3	5	—	1	1	—	—	—
18. Psychoneuroses and neuroses.....	1	2	3	—	1	1	1	1	2	—	—	—	—	—	—
19. With psychopathic personality.....	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
20. With mental deficiency.....	6	5	11	—	1	1	6	4	10	—	—	—	—	—	—
21. Undiagnosed psychoses.....	2	6	8	—	2	2	2	3	5	—	1	1	—	—	—
22. Without psychosis.....	4	—	4	—	—	—	4	—	4	—	—	—	—	—	—
Total.....	184	216	400	15	38	53	162	162	324	4	11	15	3	5	8

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1927.*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile.....	13	49	62	—	39	39	8	8	16	4	—	4	1	2	3
3. With cerebral arterio-sclerosis.....	54	44	98	8	30	38	25	11	36	10	1	11	11	2	13
4. General paralysis.....	22	6	28	2	1	3	11	1	12	8	4	12	1	—	1
5. With cerebral syphilis.....	1	4	5	—	1	1	—	2	2	1	1	2	—	—	—
6. With Huntington's chorea.....	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
7. With brain tumor.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.....	3	—	3	2	—	2	—	—	—	1	—	1	—	—	—
9. Alcoholic.....	14	6	20	—	—	—	1	—	1	13	6	19	—	—	—
10. Due to drugs and other exogenous toxins.....	2	—	2	—	—	—	1	—	1	1	—	1	—	—	—
11. With pellagra.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases.....	10	8	18	1	5	6	5	2	7	2	1	3	2	—	2
13. Manic-depressive.....	18	33	51	8	17	25	8	14	22	2	2	4	—	—	—
14. Involution mel'cholia.....	5	5	10	1	2	3	3	3	6	1	—	1	—	—	—
15. Dementia praecox.....	14	14	28	4	9	13	6	5	11	3	—	3	1	—	1
16. Paranoia and paranoid conditions.....	12	26	38	2	6	8	9	16	25	1	3	4	—	1	1
17. Epileptic psychoses.....	2	6	8	2	4	6	—	2	2	—	—	—	—	—	—
18. Psychoneuroses and neuroses.....	1	2	3	—	2	2	1	—	1	—	—	—	—	—	—
19. With psychopathic personality.....	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
20. With mental deficiency.....	6	5	11	1	3	4	2	2	4	3	—	3	—	—	—
21. Undiagnosed psychoses.....	2	6	8	—	3	3	—	3	3	1	—	1	1	—	1
22. Without psychosis.....	4	—	4	2	—	2	2	—	2	—	—	—	—	—	—
Total.....	184	216	400	34	124	158	82	69	151	51	18	69	17	5	22

TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses, for the Year Ending September 30, 1927.*

PSYCHOSES	Total		Single		Married		Widowed		Separated		Divorced		Unascer- tained	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Traumatic.....	13	49	3	12	3	13	6	24	1	1	1	1	1	1
2. Senile.....	54	44	14	11	14	10	24	30	2	1	1	1	1	1
3. With cerebral arteriosclerosis.....	22	46	5	1	5	3	22	37	2	1	1	1	1	1
4. General paralysis.....	1	2	1	1	1	1	1	2	2	2	1	2	3	3
5. With cerebral syphilis.....	1	2	1	1	1	1	1	1	1	1	1	1	1	1
6. With Huntington's chorea.....	3	6	3	3	3	3	3	3	3	3	3	3	3	3
7. With brain tumor.....	14	2	4	1	4	5	2	2	1	1	1	1	1	1
8. With other brain or nervous diseases.....	2	2	1	1	1	1	1	1	1	1	1	1	1	1
9. Alcoholic.....	10	8	3	2	3	4	1	1	1	1	1	1	1	1
10. Due to drugs and other exogenous toxins.....	18	33	10	11	10	19	27	3	1	1	1	1	1	1
11. With pellagra.....	15	5	1	2	1	2	4	1	1	1	1	1	1	1
12. With other somatic diseases.....	14	14	10	7	10	8	2	3	1	1	1	1	1	1
13. Manic-depressive.....	12	26	6	4	6	3	17	5	1	1	1	1	1	1
14. Involution melancholia.....	12	6	2	3	2	5	3	6	1	1	1	1	1	1
15. Dementia praecox.....	11	2	1	1	1	1	1	1	1	1	1	1	1	1
16. Paranoia and paranoid conditions.....	12	6	2	3	2	3	3	1	1	1	1	1	1	1
17. Epileptic psychoses.....	11	1	1	1	1	1	1	1	1	1	1	1	1	1
18. Psychoneuroses and neuroses.....	11	5	6	3	6	2	3	1	1	1	1	1	1	1
19. With psychopathic personality.....	2	6	1	1	1	1	1	1	1	1	1	1	1	1
20. With mental deficiency.....	2	6	1	1	1	1	1	1	1	1	1	1	1	1
21. Undiagnosed psychoses.....	4	4	1	1	1	1	1	1	1	1	1	1	1	1
22. Without psychosis.....	184	216	70	59	79	89	29	62	3	4	3	2	5	5
Total.....	184	216	70	59	79	89	29	62	3	4	3	2	5	5

TABLE 14. *Psychoses of Readmissions for the Year Ending September 30, 1927.*

PSYCHOSES	Males	Females	Total
1. Traumatic psychoses.....	—	—	—
2. Senile psychoses.....	3	4	7
3. Psychoses with cerebral arteriosclerosis.....	—	3	3
4. General paralysis.....	—	—	—
5. Psychoses with cerebral syphilis.....	—	—	—
6. Psychoses with Huntington's chorea.....	—	—	—
7. Psychoses with brain tumor.....	—	—	—
8. Psychoses with other brain or nervous diseases.....	—	—	—
9. Alcoholic psychoses.....	4	2	6
10. Psychoses due to drugs and other exogenous toxins.....	—	—	—
11. Psychoses with pellagra.....	—	—	—
12. Psychoses with other somatic diseases.....	—	1	1
13. Manic-depressive psychoses.....	8	20	28
14. Involution melancholia.....	2	1	3
15. Dementia praecox.....	6	11	17
16. Paranoia and paranoid conditions.....	2	5	7
17. Epileptic psychoses.....	4	—	4
18. Psychoneuroses and neuroses.....	—	—	—
19. Psychoses with psychopathic personality.....	1	—	1
20. Psychoses with mental deficiency.....	3	4	7
21. Undiagnosed psychoses.....	1	3	4
22. Without psychosis.....	—	—	—
Total.....	34	54	88

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge for the Year Ending September 30, 1927.*

PSYCHOSES	Total			Recovered			Improved			Unimproved			Without Psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
2. Senile.....	—	7	7	—	2	2	—	3	3	—	2	2	—	—	—
3. With cerebral arterio-sclerosis.....	4	9	13	—	1	1	3	7	10	1	1	2	—	—	—
4. General paralysis.....	4	2	6	—	—	—	2	2	4	2	—	2	—	—	—
5. With cerebral syphilis.....	1	1	2	—	—	—	1	1	2	—	—	—	—	—	—
6. With Huntington's chorea.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.....	2	1	3	—	—	—	1	—	1	1	1	2	—	—	—
9. Alcoholic.....	16	4	20	6	2	8	10	2	12	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins.....	1	1	2	1	1	2	—	—	—	—	—	—	—	—	—
11. With pellagra.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases.....	2	5	7	—	1	1	1	2	3	1	2	3	—	—	—
13. Manic-depressive.....	23	44	67	18	18	36	5	20	25	—	6	6	—	—	—
14. Involution melancholia.....	—	3	3	—	—	—	—	2	2	—	1	1	—	—	—
15. Dementia praecox.....	30	18	48	—	—	—	26	11	37	4	7	11	—	—	—
16. Paranoia and paranoid conditions.....	5	11	16	—	—	—	4	10	14	1	1	2	—	—	—
17. Epileptic psychoses.....	—	2	2	—	—	—	—	—	—	—	2	2	—	—	—
18. Psychoneuroses and neuroses.....	3	4	7	2	1	3	1	1	2	—	2	2	—	—	—
19. With psychopathic personality.....	3	1	4	—	1	1	2	—	2	1	—	1	—	—	—
20. With mental deficiency.....	3	9	12	—	2	2	3	6	9	—	1	1	—	—	—
21. Undiagnosed psychoses.....	2	2	4	—	—	—	2	1	3	—	1	1	—	—	—
22. Without psychosis.....	4	1	5	—	—	—	—	—	—	—	—	—	4	1	5
Total.....	104	125	229	27	29	56	62	68	130	11	27	38	4	1	5

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses for the Year Ending September 30, 1927.

CAUSES OF DEATH	Total			Senile			With cerebral arterio-sclerosis			General paralysis			Alcoholic			Manic-depressive			Involution melancholia		
	Total			Senile			With cerebral arterio-sclerosis			General paralysis			Alcoholic			Manic-depressive			Involution melancholia		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious Diseases</i>																					
Erysipelas.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis of the respiratory system.....	10	19	29	-	1	1	-	-	-	-	-	-	-	-	-	2	1	3	-	-	-
Tuberculosis of other organs.....	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Purulent infection, septicaemia.....	1	1	2	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
<i>General Diseases not included in Class I</i>																					
Cancer and other malignant tumors.....	2	2	4	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Diabetes.....	1	2	3	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Other general diseases.....	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Nervous System</i>																					
Meningitis (non-epidemic).....	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Cerebral hemorrhage, apoplexy.....	3	6	9	-	3	3	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-
General paralysis of the insane.....	8	5	13	-	-	-	-	8	5	13	-	-	-	-	-	-	-	-	-	-	-
Other forms of mental disease.....	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Epilepsy.....	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chorea.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Circulatory System</i>																					
Endocarditis and myocarditis.....	21	28	49	3	16	19	11	5	16	2	-	2	-	-	-	1	2	3	-	1	1
Other diseases of the heart.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arteriosclerosis.....	23	3	26	7	1	8	15	1	16	-	-	-	-	-	-	-	1	1	1	-	1
<i>Diseases of the Respiratory System</i>																					
Bronchopneumonia.....	46	37	83	8	14	22	18	13	31	15	2	17	1	-	1	1	2	3	1	-	1
Lobar pneumonia.....	9	13	22	1	1	2	3	6	9	2	1	3	-	-	-	2	3	5	-	-	-
<i>Diseases of the Digestive System</i>																					
Diarrhea and enteritis.....	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hernia and intestinal obstruction.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Non-Veneral Diseases of Genito-Urinary System</i>																					
Nephritis.....	-	3	3	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diseases of bladder.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>External Causes</i>																					
Suicide.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accidental traumatism.....	3	-	3	-	-	-	-	1	1	-	-	1	-	-	-	1	-	1	-	-	-
Total.....	129	132	261	20	37	57	51	29	80	28	8	36	2	1	3	7	13	20	2	1	3





TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses  
for the Year Ending September 30, 1927.

PSYCHOSES	Total		Under 15 years		15-19 years		20-24 years		25-29 years		30-34 years		35-39 years		40-44 years	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
	T.	T.	T.	T.	T.	T.	T.	T.	T.	T.	T.	T.	T.	T.	T.	T.
1. Traumatic.....	-	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile.....	20	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis.....	51	29	80	-	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis.....	22	8	36	-	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis.....	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases.....	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic.....	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra.....	9	8	17	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases.....	7	13	20	-	-	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive.....	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-
14. Involution melancholia.....	5	18	23	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox.....	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions.....	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency.....	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total.....	129	132	261	-	-	-	1	3	-	1	1	4	5	7	7	11

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses for the Year Ending September 30, 1927.—Concluded.

	45—49 years		50—54 years		55—59 years		60—64 years		65—69 years		70 years and over		Unascertained	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Traumatic.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis.....	1	1	—	—	1	1	1	2	1	6	18	28	—	—
4. General paralysis.....	9	2	6	4	6	3	12	6	9	5	23	17	—	—
5. With cerebral syphilis.....	—	—	—	—	—	—	2	1	1	1	—	—	—	—
6. With Huntington's chorea.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor.....	—	—	—	1	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic.....	—	—	—	—	—	—	—	—	1	1	1	1	—	—
10. Due to drugs and other exogenous toxins.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra.....	1	1	2	4	1	1	1	1	2	1	2	2	—	—
12. With other somatic diseases.....	1	1	2	2	1	1	1	1	2	4	2	4	—	—
13. Manic-depressive.....	1	1	1	1	1	1	—	—	—	—	1	1	—	—
14. Involution melancholia.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox.....	7	1	2	3	1	2	1	2	—	—	—	—	—	—
16. Paranoia and paranoid conditions.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses.....	—	1	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total.....	13	8	21	10	13	8	18	14	14	33	46	52	0	0

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses, for the Year Ending September 30, 1927.*

PSYCHOSES	Total			Less than 1 month			1-3 months			4-7 months			8-12 months			1-2 years			3-4 years		
	Total			Less than 1 month			1-3 months			4-7 months			8-12 months			1-2 years			3-4 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	20	37	57	2	10	12	5	4	9	1	6	7	1	2	3	4	6	10	4	5	9
2. Senile.....	51	29	80	9	10	19	14	6	20	6	1	7	2	4	6	12	5	17	3	1	4
3. With cerebral arteriosclerosis.....	28	8	36	6	—	6	4	5	9	2	—	2	—	1	1	13	1	14	1	1	2
4. General paralysis.....	—	3	3	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases.....	3	1	4	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1
9. Alcoholic.....	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra.....	9	8	17	4	3	7	3	1	4	—	2	2	1	1	2	1	3	3	2	1	3
12. With other somatic diseases.....	7	13	20	1	4	4	1	1	2	—	—	—	3	—	—	1	3	—	—	—	—
13. Manic-depressive.....	2	1	3	1	—	1	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
14. Involution melancholia.....	5	18	23	—	—	—	—	—	—	1	1	1	—	—	—	1	3	4	2	2	2
15. Dementia praecox.....	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
16. Paranoia and paranoid conditions.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses.....	1	1	2	1	—	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
22. Without psychosis.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total.....	129	132	261	24	28	52	28	20	48	9	12	21	6	7	13	32	21	53	12	12	24



TABLE 19. *Family Care Department, for the Year Ending September 30, 1927.*

	Males	Females	Total
Remaining in Family Care Sept. 30, 1926	-	7	7
On visit from Family Care Sept. 30, 1926	-	-	-
Admitted during the year	-	11	11
Whole number of cases within the year	-	18	18
Dismissed within the year	-	8	8
Returned to institution	-	6	6
Discharged	-	2	2
On visit	-	-	-
Remaining in Family Care Sept. 30, 1927	-	10	10
Supported by State	-	9	9
Private	-	-	-
Self-supporting	-	1	1
Number of different persons within the year	-	16	16
Number of different persons admitted	-	11	11
Number of different persons dismissed	-	8	8
Average daily number in Family Care during the year	-	8.58	8.58
Supported by State	-	7.24	7.24
Private	-	.44	.44
Self-supporting	-	.90	.90

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The Commonwealth of Massachusetts

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

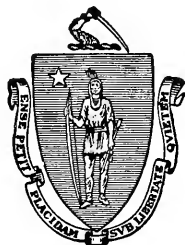
BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1928

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THE EIGHTY-EIGHTH ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



# BOSTON STATE HOSPITAL

## BOARD OF TRUSTEES.

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MRS. KATHERINE G. DEVINE, *Secretary*, Milton.  
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J. WALDO POND, Boston.  
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Vacancy.

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PAUL A. CHANDLER, M.D., *Ophthalmologist*.  
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ROY D. HALLORAN, M.D., *Assistant Superintendent*.  
MARY E. GILL NOBLE, M.D., *Senior Physician*.  
EDMUND M. PEASE, M.D., *Senior Physician*.  
GENEVA TRYON, M.D., *Senior Physician*.  
HERBERT E. HERRIN, M.D., *Senior Physician*.  
———, *Senior Physician*.  
———, *Senior Physician*.  
———, *Senior Physician*.  
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ARTHUR E. GILMAN, *Steward*.  
ADELINE J. LEARY, *Treasurer*.

## TRUSTEES' REPORT.

*To His Excellency the Governor and the Honorable Council:*

The trustees of the Boston State Hospital have the honor to submit herewith their twentieth annual report covering the year ended November 30, 1928. The trustees have maintained their general oversight of the condition and conduct of the hospital, receiving at each meeting a detailed written report from the Superintendent and making through their committees a monthly inspection of the premises and patients. They are satisfied that the condition of the hospital and the efficiency of its work are on as high a plane as resources permit. The operations of the year are fully described in the accompanying report of the Superintendent.

The death of Mr. William F. Whittemore, on December 20, 1927, terminated a long service to the Commonwealth and was a very great loss to this Board. Mr. Whittemore was for many years a member of the former State Board of Insanity, and when he became a trustee of this hospital in 1917, he brought a valuable experience in matters related to the care of the insane. He had a warm personal interest in the welfare of the patients and a deep sense of responsibility in the problems of administration. He also served as treasurer of the Occupational



Centre at Hopkinton, which is performing a useful service for former patients. His friendship was valued highly by all his colleagues on this Board.

The vacancies caused by the death of Mr. Whittemore and the resignation of Mr. Watchmaker, in February, 1927, have not yet been filled.

#### PATIENTS UNDER THE CARE OF THE TRUSTEES.

At the beginning of the year there were 2,201 patients in the hospital, 10 in private care, and 190 on visit or escape. At the close of the year the total number was 2,443, of whom 2,224 were in the hospital, 9 were in private care, and 210 on visit or escape.

#### COST OF MAINTENANCE.

The amount allowed for maintenance for this year by the General Court was \$851,370.00, to which should be added \$25,773.10 brought over from the previous year. By strict economy in operations the total expenditures, including unpaid liabilities, were \$853,031.87. The average daily number of patients was 20.30 in excess of the number on which the appropriations were based. The average daily percentage of vacancies among all employees was 5.78, as compared with 6.73 for the preceding year. Unexpected defects in one loop of the steam mains required immediate attention, and an allowance of \$20,000 for this purpose was granted from the Governor's contingent fund.

#### ESTIMATES FOR MAINTENANCE.

The following are the estimates for the amount needed for maintenance for the ensuing year on the established salary scales and the established per capita allowances for a population of 2,250:

Personal Service . . . . .	\$465,662.50
Religious Instruction . . . . .	2,080.00
Travel, Transportation, etc. . . . .	7,930.00
Food . . . . .	212,701.50
Clothing and Materials . . . . .	33,825.00
Heat, Light and Power . . . . .	75,142.00
Medical and General Care . . . . .	31,140.00
Furnishings and Household Supplies . . . . .	44,400.00
Farm . . . . .	7,969.34
Garage, Stable and Grounds . . . . .	8,757.02
Repairs, Ordinary . . . . .	21,000.00
Repairs and Renewals . . . . .	17,843.00
Total . . . . .	\$928,450.36

#### NEW CONSTRUCTION.

The last General Court appropriated \$180,000.00 for a new administration building. The plans for the building still await final approval. There was also an appropriation of \$13,000.00 for the extension of steam lines to serve this new building.

HENRY LEFAVOUR,  
KATHERINE G. DEVINE,

CHARLES B. FROTHINGHAM,  
EDNA W. DREYFUS,

NOVEMBER 30, 1928.  
J. WALDO POND,

*Trustees.*

#### SUPERINTENDENT'S REPORT.

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1928, and the fiscal year ending November 30, 1928. Founded by the City of Boston in 1839, this marks the completion of its eighty-ninth year as a hospital for mental diseases, and the twentieth year of its history as a State institution.

#### MOVEMENT OF POPULATION.

The census of the hospital on September 30, 1927, was as follows: in the wards, men, 935, women, 1,247, total, 2,182; at home on visit, men, 80, women, 114, total, 194; boarding out, men, none, women, 10; and out on escape, men, 5,

women, none; making a total of 2,391, 1,020 men and 1,371 women, in the custody of the hospital.

Three hundred and fifteen men and 351 women, a total of 666, were received during the year. This included the following: first admissions as insane<sup>1</sup>, men, 190, women, 221, total, 411; readmissions as insane<sup>2</sup>, men, 38, women, 43, total, 81; first admissions, temporary care, men, 40, women, 38, total, 78; readmissions, temporary care, men, 21, women, 32, total, 53; and transferred from other institutions<sup>3</sup>, men, 26, women, 17, total, 43. Three hundred and thirteen cases, including 143 men and 170 women, were discharged during the year. Fourteen men and three women, a total of 17, were transferred to other institutions. One hundred and eleven men and 145 women, a total of 256, died during the year.

The census on September 30, 1928, was as follows: in the wards, men, 975, women, 1,291, total, 2,266; at home on visit, men, 79, women, 103, total, 182; boarding out, men, none, women, nine; and out on escape, men, 4, women, none; making a total of 2,461, 1,058 men and 1,403 women, in the custody of the hospital.

The total number of cases treated during the year was 3,057, 1,335 men and 1,722 women.

The average daily number of patients for the statistical year was: men, 1,048.22, women, 1,381.54, total, 2,429.76. The average daily number in the wards was: men, 963.76, women, 1,259.21, total, 2,222.97, or 91.49% of the whole number. The average daily number at home on visit was: men, 81.18, women, 112.69, total, 193.87, or 7.98%. The average daily number boarding out was: men, none, women, 9.64, or .40%. The average daily number out on escape was: 3.28, all men, or .13%. The average daily number of committed cases was 948.01 men, 1,251.99 women, total, 2,200.00, or 98.97% of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was: men, .022, women, .016, total, .038, or .001%. The average daily number of temporary care cases was: men, 15.75, women, 7.22, total, 22.97, or 1.03%. The average daily number of cases under complaint or indictment was: men, 11.41, women, 2.10, total, 13.51, or .61%. Attention should be called to the fact that the average daily number given above for temporary care cases includes emergency cases and those under complaint or indictment. The average daily number of epileptics was: men, 14.40, women, 15.99, total, 30.39, or 1.37%. The average daily number of tuberculous patients was: men, 9.26, women, 36.00, total, 45.26, or 2.04%. The average daily number of reimbursing cases was: men, 86.22, women, 198.31, total, 284.53, or 12.80%. The average daily number of cases supported by the State was: men, 877.54, women, 1,060.90, total, 1,928.44, or 87.20%. The average daily number of ex-service patients was 57.00.

The recovery rate, based on the number of all first admissions (489), was 16.36%; based on the total number cared for during the year (3,057), 2.61%; based on the average daily number in the wards (2,222.97), 3.59%; and based on the total number of admissions for the year (666), 12.01%.

The death rate, based on the total number cared for during the year, was 8.37%; and based on the average daily number in the wards, 11.51%. The death rate of the hospital is unusually large when compared with that of other hospitals of a similar character, as about 35% of the population is of the infirmary type, and nearly 10% represents actual bed cases. This is due to the fact that the acutely ill, the senile and the infirm cases from the city cannot be readily transported to distant places, and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate. Of a total of 1,556 patients dying in the hospital during the period of eight years from October 1, 1920, to September 30, 1928, 7.59% had a residence in this hospital of seven days or less; 29.19%, thirty days or less; 58.05%, six months or less; and 69.94%, one year or less. It is also of interest to note that .578% died after a residence in the hospital of only one day; .771%, after two days; .964%, after three days; 1.285%, after four days; and 1.093%, after five days; a percentage of 4.69 having a hospital residence of only five days or

<sup>1</sup> Including 3 men and 1 woman committed from temporary care of the preceding year.

<sup>2</sup> Including 6 men committed from temporary care of the preceding year.

<sup>3</sup> Including 2 men under Section 100 transferred from the Boston Psychopathic Hospital.

less. Of the 119 cases dying in the hospital during this period after a hospital residence of seven days or less, nearly one half remained in the hospital for four days or less.

A study has been made of the residence at this hospital of 2,952 admissions during a seven-year period (October 1, 1920, to September 30, 1927, inclusive). This represents all of the admissions during that time with the exception of those dying in the hospital, which have been omitted for obvious reasons. This analysis shows that 5.01% were discharged at the expiration of seven days or less in the hospital; 14.46%, thirty days or less; 36.45%, six months or less; and 46.44%, one year or less. Of these admissions, 9.11% were remaining in the hospital after a residence of between one and two years; 6.47% after between two and three years; 5.21% after between three and four years; 4.57% after between four and five years; 5.05% after between five and six years; 3.79% after between six and seven years. Of 1,920 consecutive admissions during a period of three years beginning October 1, 1920, 22.65% have been in the hospital for five years or more.

Of the first admissions as insane, 189, or 45.99%, were foreign born, and 314, or 76.40%, were of foreign parentage on one or both sides. Seventy-five, or 18.29%, were aliens. Citizenship was unascertained in 23, or 5.60%. Of the 3,344 consecutive first admissions as insane, for the eight-year period beginning October 1, 1920, 1,649, or 49.31%, were foreign born; 2,711, or 81.07%, were of foreign parentage on one or both sides, 639, or 19.10%, were aliens, and citizenship was unascertained in 357, or 10.68%.

The average age on admission was 53.31; 180, or 43.79%, were sixty years of age or over, and 99, or 24.09%, were seventy years of age or over. For the eight-year period beginning October 1, 1920, the average age on admission was 51.58; 1,270, or 37.97%, were sixty years of age or over; and 676, or 20.21%, were seventy years of age or over.

The first admissions for the year, classified according to legal status, were as follows:

	Males.	Females.	Totals.
Committed cases (section 51, chapter 123, General Laws)	130	143	273
Voluntary admissions (section 86, chapter 123, General Laws)	0	0	0
Emergency commitments (section 78, chapter 123, General Laws)	1	1	2
Pending examination and hearing (section 55, chapter 123, General Laws)	0	0	0
Temporary care cases (section 79, chapter 123, General Laws)	50	67	117
Observation cases (section 77, chapter 123, General Laws)	9	10	19
Total	190	221	411

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (section 51, chapter 123, General Laws), 66.42%; emergency cases (section 78, chapter 123, General Laws), .49%; temporary care cases (section 79, chapter 123, General Laws), 28.47%; and observation cases (section 77, chapter 123, General Laws), 4.62%. For the eight-year period beginning October 1, 1920, the distribution of the 3,344 first admissions, classified according to legal status, was as follows: committed cases (section 51, chapter 123, General Laws), 2,501, or 74.79%; emergency cases (section 78, chapter 123, General Laws), 50, or 1.40%; temporary care cases (section 79, chapter 123, General Laws), 617, or 18.45%; observation cases (section 77, chapter 123, General Laws), 152, or 4.55%; and cases held under complaint or indictment (section 100, chapter 123, General Laws), 19, or .57%. During the above period there was only one case pending examination and hearing (section 55, chapter 123, General Laws), and one Boston Police case (chapter 307, Acts of 1910). No voluntary cases (section 86, chapter 123, General Laws) have been received since 1921, during which year there were three.

The first admissions for the year included 273 committed cases. Of these, 6,

or 2.18%, were discharged; 4, or 1.46%, were transferred to other hospitals for mental diseases; 31, or 11.27%, died; and 232, or 85.09%, remained at the end of the statistical year.

Of the first admissions for the year, 2 were emergency cases, both of which were committed within a few days after admission.

One hundred and seventeen of the first admissions during the year were temporary care cases. Of these, 106, or 90.59%, were committed; 2, or 1.71%, changed to emergency status (section 78, chapter 123, General Laws); and 9, or 7.70%, to observation status (section 77, chapter 123, General Laws).

The first admissions for the year also included 19 cases admitted for observation under the provisions of section 77, chapter 123, General Laws, all of which were subsequently committed.

Of the 411 first admissions for the year, the cause was unascertained or no cause given in 114 cases, or 27.74%. In the 297 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 111, or 37.37%; arteriosclerosis, 47, or 15.83%; syphilis, 22, or 7.08%; alcoholism, 30, or 10.10%; involutional changes, 19, or 6.40%; and traumatism, 1, or .34%. There was a family history of mental diseases in 74, or 18.00%, mental defects in 5, or 1.21%, and nervous diseases in 13, or 3.16%, of the first admissions. Of the 3,344 first admissions to the hospital since October 1, 1920, the cause was unascertained or no cause given in 1,019, or 30.48%, of the cases. In the 2,325 cases where a definite cause was assigned, the etiological factors are classified as follows: senility, 506, or 21.76%; arteriosclerosis, 511, or 21.98%; syphilis, 314, or 13.50%; alcoholism, 295, or 12.70%; involutional changes, 154, or 6.62%; and traumatism, 40, or 1.72%. There was a family history of mental diseases in 547, or 16.36%, mental defects in 58, or 1.73%, and nervous diseases in 139, or 4.16%, of the first admissions.

The forms of mental disease shown by the 411 first admissions for the year, briefly summarized, were as follows: senile psychoses, 85, or 20.68%; psychoses with cerebral arteriosclerosis, 76, or 18.50%; general paralysis, 21, or 5.11%; psychoses with other brain or nervous diseases, 6, or 1.46%; alcoholic psychoses, 27, or 6.57%; psychoses with other somatic diseases, 17, or 4.13%; manic-depressive psychoses, 65, or 15.81%; involution melancholia, 6, or 1.46%; dementia praecox, 20, or 4.87%; paranoia or paranoid conditions, 31, or 7.54%; epileptic psychoses, 6, or 1.46%; psychoses with mental deficiency, 10, or 2.44%; undiagnosed psychoses, 31, or 7.54%; and all other psychoses one per cent or less. Six, or 1.46%, were without psychosis. The psychoses of all first admissions for the year are shown in Table No. 6, on page 28. The forms of mental disease shown by the 3,344 first admissions since October 1, 1920, are summarized as follows: traumatic psychoses, 16, or .48%; senile psychoses, 522, or 15.61%; psychoses with cerebral arteriosclerosis, 660, or 19.74%; general paralysis, 288, or 8.61%; psychoses with cerebral syphilis, 20, or .59%; psychoses with Huntington's chorea, 4, or .12%; psychoses with brain tumor, 7, or .21%; psychoses with other brain or nervous diseases, 56, or 1.67%; alcoholic psychoses, 238, or 7.11%; psychoses due to drugs and other exogenous toxins, 12, or .36%; psychoses with pellagra, 2, or .06%; psychoses with other somatic diseases, 108, or 3.23%; manic-depressive psychoses, 432, or 12.92%; involution melancholia, 75, or 2.24%; dementia praecox, 393, or 11.75%; paranoia or paranoid conditions, 202, or 6.04%; epileptic psychoses, 28, or .84%; psychoneuroses and neuroses, 23, or .69%; psychoses with psychopathic personality, 23, or .69%; psychoses with mental deficiency, 87, or 2.60%; and undiagnosed psychoses, 116, or 3.47%. Thirty-two, or .93%, were without psychosis. Attention should be called here again to the fact that the psychoses represented by our first admissions are not consistent with the admission rate shown by other hospitals. This is due to the fact that the acutely ill, the senile and infirm cases from the City of Boston cannot be removed to distant institutions and for that reason are brought here. It does not, of course, mean that the admission rates for manic-depressive insanity and for dementia praecox are lower in Boston. As a matter of fact, if the senile and arteriosclerotic cases are disregarded, it will be readily apparent that this is not the case.

The forms of mental disease shown by the readmissions for the year, briefly summarized, were as follows: traumatic psychosis, 1, or 1.23%; senile psychoses,

3, or 3.70%; psychoses with cerebral arteriosclerosis, 4, or 4.94%; psychosis with cerebral syphilis, 1, or 1.23%; alcoholic psychoses, 6, or 7.41%; manic-depressive psychoses, 33, or 40.74%; dementia praecox, 13, or 16.05%; paranoia or paranoid conditions, 4, or 4.94%; epileptic psychoses, 2, or 2.47%; psychoses with psychopathic personality, 2, or 2.47%; psychoses with mental deficiency, 5, or 6.17%; and undiagnosed psychosis, 7, or 8.64%.

Of these 81 admissions, 40, or 49.38%, were committed under the provisions of section 51, chapter 123, General Laws; 33, or 40.74%, were temporary care cases (section 79, chapter 123, General Laws); and 8, or 9.88%, were observation cases (section 77, chapter 123, General Laws). No emergency cases (section 78, chapter 123, General Laws); no voluntary cases (section 86, chapter 123, General Laws); and no cases held under complaint or indictment (section 100, chapter 123, General Laws) or pending examination and hearing (section 55, chapter 123, General Laws) were included in the readmissions for the year.

The following tables show the psychoses of the 411 first admissions for the year, classified according to legal status:

*Psychoses of Committed Cases (Section 51, Chapter 123, General Laws).*

	Males.	Females.	Totals.
Traumatic psychosis . . . . .	1	0	1
Senile psychoses . . . . .	12	32	44
Psychoses with cerebral arteriosclerosis . . . . .	24	16	40
General paralysis . . . . .	10	4	14
Psychoses with other brain or nervous diseases . . . . .	4	1	5
Alcoholic psychoses . . . . .	16	5	21
Psychosis due to drugs or other exogenous toxins . . . . .	1	0	1
Psychoses with other somatic diseases . . . . .	3	6	9
Manic-depressive psychoses . . . . .	20	31	51
Involution melancholia . . . . .	0	4	4
Dementia praecox . . . . .	9	7	16
Paranoia or paranoid conditions . . . . .	9	13	22
Epileptic psychoses . . . . .	3	2	5
Psychoneuroses or neuroses . . . . .	1	1	2
Psychoses with mental deficiency . . . . .	3	8	11
Undiagnosed psychoses . . . . .	12	9	21
Without psychosis . . . . .	2	3	5
Diagnoses deferred . . . . .	0	1	1
Total . . . . .	130	143	273

*Psychoses of Emergency Cases (Section 78, Chapter 123, General Laws).*

	Males.	Females.	Totals.
Senile psychosis . . . . .	0	1	1
Psychosis with other brain or nervous disease . . . . .	1	0	1
Total . . . . .	1	1	2

*Psychoses of Temporary Care Cases (Section 79, Chapter 123, General Laws).*

	Males.	Females.	Totals.
Senile psychoses . . . . .	11	30	41
Psychoses with cerebral arteriosclerosis . . . . .	18	13	31
General paralysis . . . . .	2	2	4
Psychosis with brain tumor . . . . .	1	0	1
Alcoholic psychoses . . . . .	3	1	4
Psychoses with other somatic diseases . . . . .	2	6	8
Manic-depressive psychoses . . . . .	4	7	11
Involution melancholia . . . . .	0	2	2
Dementia praecox . . . . .	1	2	3
Paranoia or paranoid conditions . . . . .	1	3	4
Undiagnosed psychoses . . . . .	5	1	6
Without psychosis . . . . .	1	0	1
Diagnoses deferred . . . . .	1	0	1
Total . . . . .	50	67	117

*Psychoses of Observation Cases (Section 77, Chapter 123, General Laws).*

	Males.	Females.	Totals.
Senile psychoses . . . . .	2	3	5
Psychosis with cerebral arteriosclerosis . . . . .	1	0	1
General paralysis . . . . .	2	0	2
Alcoholic psychosis . . . . .	0	1	1
Manic-depressive psychoses . . . . .	1	2	3
Dementia praecox . . . . .	1	0	1
Paranoia or paranoid conditions . . . . .	0	3	3
Undiagnosed psychoses . . . . .	2	1	3
Total . . . . .	9	10	19

Two hundred and thirty-two temporary care cases (section 79, chapter 123, General Laws) were admitted during the year ending September 30, 1928. Of

these, 137, or 59.05%, were committed under the provisions of section 51, chapter 123, General Laws; 16, or 6.90%, changed to observation status; none to voluntary status; 5, or 2.15%, to emergency status; 64, or 27.59%, were discharged; 8, or 3.45%, died; and 2, or .86%, remained at the end of the statistical year. Of the 64 discharges, 3, or 4.69%, were discharged as recovered; 8, or 12.50%, were discharged as improved; 37, or 57.81%, as unimproved; and 16, or 25.00%, as without psychosis.

Six emergency cases (section 78, chapter 123, General Laws), including 5 cases from section 79, were admitted during the year. Five of these were committed in accordance with section 51, chapter 123, General Laws, and one died. None remained at the end of the statistical year.

Seventy observation cases (section 77, chapter 123, General Laws), including 16 cases from section 79, were admitted during the year. Of these, 28, or 40%, were subsequently committed under the provisions of section 51, chapter 123, General Laws; 35, or 50%, discharged; 2, or 2.86%, died; and 5, or 7.14%, remained at the end of the statistical year. Of the 35 discharges, 8, or 22.86%, were discharged as recovered; 3, or 8.57%, as improved; 3, or 8.57%, as unimproved; and 21, or 60.00%, as without psychosis.

Fifteen cases held under complaint or indictment (section 100, chapter 123, General Laws) were admitted during the year. Of these, seven were discharged and returned to Court (three as recovered and four as without psychosis) and eight remained on the books of the hospital at the end of the statistical year.

One case was admitted during the year under the provisions of Chapter 307, Acts of 1910, and was discharged as recovered.

No voluntary cases (section 86, chapter 123, General Laws) and no cases pending examination and hearing (section 55, chapter 123, General Laws) were admitted during the year.

The following table shows the psychoses of all cases admitted as temporary care, all forms, and subsequently committed under the provisions of section 51, chapter 123, General Laws, for the eight-year period beginning October 1, 1920:

	Males.	Females.	Totals.
Traumatic psychoses . . . . .	4	1	5
Senile psychoses . . . . .	54	138	192
Psychoses with cerebral arteriosclerosis . . . . .	112	113	225
General paralysis . . . . .	40	12	52
Psychoses with cerebral syphilis . . . . .	4	5	9
Psychoses with Huntington's chorea . . . . .	0	2	2
Psychoses with brain tumor . . . . .	2	0	2
Psychoses with other brain or nervous diseases . . . . .	14	3	17
Alcoholic psychoses . . . . .	51	18	69
Psychoses due to drugs and other exogenous toxins . . . . .	1	3	4
Psychoses with pellagra . . . . .	0	0	0
Psychoses with other somatic diseases . . . . .	15	27	42
Manic-depressive psychoses . . . . .	60	97	157
Involution melancholia . . . . .	2	11	13
Dementia praecox . . . . .	52	50	102
Paranoia and paranoid conditions . . . . .	7	42	49
Epileptic psychoses . . . . .	4	4	8
Psychoneuroses and neuroses . . . . .	6	6	12
Psychoses with psychopathic personality . . . . .	8	7	15
Psychoses with mental deficiency . . . . .	16	16	32
Undiagnosed psychoses . . . . .	18	15	33
Without psychosis . . . . .	3	4	7
Diagnosis deferred . . . . .	1	0	1
Total . . . . .	474	574	1,048

The total number of cases discharged during the year was 195. Of this number, 62, or 31.80%, were discharged as recovered; 101, or 51.80%, as improved; 26, or 13.33%, as unimproved; and 6, or 3.07%, as without psychosis. Of the 62 recovered cases, 12, or 19.35%, were cases of alcoholic psychosis; 2, or 3.23%, psychosis due to drugs or other exogenous toxins; 3, or 4.84%, psychosis with other somatic disease; 36, or 58.06%, manic-depressive psychosis; 3, or 4.84%, psychosis with mental deficiency; and each of the following, one, or 1.61%: traumatic psychosis, paranoia or paranoid condition, epileptic psychosis, psychoneurosis or neurosis, psychosis with psychopathic personality, and undiagnosed psychosis. Of the 101 cases discharged as improved, 5, or 4.96%, were cases of senile psychosis; 13, or 12.87%, psychosis with cerebral arteriosclerosis; 4, or 3.96%, general paralysis; 4, or 3.96%, alcoholic psychosis; 34, or 33.66%, manic-depressive psychosis;

5, or 4.96%, involution melancholia; 13, or 12.87%, dementia praecox; 12, or 11.88%, paranoia or paranoid conditions; 2, or 1.98%, psychosis with psychopathic personality; 4, or 3.96%, psychosis with mental deficiency; 2, or 1.98%, undiagnosed psychosis; and 1, or .99%, each, psychosis with cerebral syphilis, psychosis with other brain or nervous disease, and psychoneurosis or neurosis. Of the 26 cases discharged as unimproved, 3 or 11.54%, were cases of senile psychosis; 3, or 11.54%, psychosis with cerebral arteriosclerosis; 3, or 11.54%, manic-depressive psychosis; 2, or 7.69%, involution melancholia; 2, or 7.69%, dementia praecox; 4, or 15.38%, paranoia or paranoid conditions; 3, or 11.54%, psychosis with mental deficiency; 2, or 7.69%, undiagnosed psychosis; and 1, or 3.85%, each, traumatic psychosis, general paralysis, alcoholic psychosis, and epileptic psychosis.

The following is a study of the entire hospital residence (including other institutions for mental diseases) of the cases discharged during the year: 2, or 1.02%, were discharged after a residence of less than one month; 14, or 7.14%, after a residence of from one to six months; 9, or 4.59%, from six months to one year; 82, or 41.84%, from one to two years; 37, or 18.88%, from two to three years; 16, or 8.16%, from three to four years; 7, or 3.57%, four to five years; 23, or 11.73%, five to ten years; and 6, or 3.06%, ten years or over. The average duration of hospital residence was two years, nine months, and twenty-eight days.

Of the 245 deaths occurring during the year, 158, or 64.49%, represented cases dying at the age of sixty or over. In 99, or 40.41%, death occurred at the age of seventy or over. Of the 2,087 deaths occurring at the hospital during the eight-year period beginning October 1, 1920, 1,225, or 58.70%, were cases dying at the age of sixty or over; and in 737, or 35.31%, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: bronchopneumonia, 69, or 28.17%; arteriosclerosis, 35, or 14.30%; tuberculosis of the lungs, 23, or 9.38%; endocarditis and myocarditis, 60, or 24.50%; general paralysis of the insane, 11, or 4.50%; lobar pneumonia, 6, or 2.45%; cerebral hemorrhage, 19, or 7.75%; and cancer, 3, or 1.23%.

The psychoses represented by deaths occurring in the hospital during the year were as follows: senile psychoses, 68, or 27.76%; psychoses with cerebral arteriosclerosis, 62, or 25.30%; general paralysis, 21, or 8.57%; psychoses with Huntington's chorea, 2, or .81%; psychoses with other brain or nervous diseases, 7, or 2.86%; alcoholic psychoses, 9, or 3.67%; psychoses with other somatic diseases, 10, or 4.09%; manic-depressive psychoses, 17, or 6.94%; involution melancholia, 5, or 2.04%; dementia praecox, 27, or 11.02%; paranoia or paranoid conditions, 6, or 2.45%; epileptic psychoses, 5, or 2.04%; psychoses with mental deficiency, 4, or 1.64%; and psychosis with cerebral syphilis and psychosis with brain tumor, each one, or .41%. Of the 68 cases of senile psychosis dying in the hospital during the year, 28, or 41.19%, were due to bronchopneumonia, and 17, or 25.00%, to endocarditis and myocarditis. Of the 62 cases of psychosis with cerebral arteriosclerosis, death was due in 14, or 22.58%, to bronchopneumonia, in 15, or 24.28%, to endocarditis and myocarditis, and in 20, or 32.26%, death was attributed directly to arteriosclerosis. Of the 21 cases of general paralysis, 7, or 33.33%, were reported as dying from bronchopneumonia, and in 11, or 52.38%, general paralysis of the insane was given as the cause of death. Of the 27 cases of dementia praecox, death was due in 10, or 37.03%, to pulmonary tuberculosis.

Of the 245 patients dying in the hospital during the year, the total duration of hospital residence was as follows: one year or less, 129, or 52.65%; one to two years, 21, or 8.57%; two to three years, 20, or 8.16%; three to four years, 11, or 4.40%; four to five years, 5, or 2.04%; five to six years, 6, or 2.45%; six to seven years, 11, or 4.49%; seven to eight years, 5, or 2.04%; eight to nine years, 4, or 1.63%; nine to ten years, 4, or 1.63%; ten to fifteen years, 9, or 3.67%; fifteen to twenty years, 13, or 5.31%; and over twenty years, 7, or 2.86%. The duration of hospital residence was ascertained in all cases during the year. The psychoses showing the longest hospital residence were as follows: general paralysis, one over 15 years; alcoholic psychosis, one over 17 years; manic-depressive psychosis, one over 15 years; dementia praecox, three over 15 years, one over 17 years, two over 18 years, one over 23 years, one over 37 years, one over 43 years, and one over

61 years; paranoia or paranoid condition, one over 15 years; epileptic psychosis, one over 17 years; and psychosis with mental deficiency, one over 18 years. The following shows the duration of hospital residence of all cases dying in the hospital during the eight-year period beginning October 1, 1920: one year or less, 1,068, or 51.17%; one to two years, 279, or 13.37%; two to three years, 182, or 8.72%; three to four years, 101, or 4.84%; four to five years, 86, or 4.12%; five to six years, 40, or 1.92%; six to seven years, 61, or 2.92%; seven to eight years, 44, or 2.11%; eight to nine years, 30, or 1.44%; nine to ten years, 33, or 1.58%; ten to fifteen years, 86, or 4.12%; fifteen to twenty years, 34, or 1.63%; and over twenty years, 41, or 1.96%. In this total of 2,087 deaths, the duration of hospital residence was unascertained in 2, or .10%.

The following general statistical information relating to ward service should be of interest:

	Males.	Females.	Totals.	Percentage.
Average daily population . . . . .	963.76	1,259.21	2,222.97	100.00
In bed . . . . .	111.37	131.37	242.94	10.93
In restraint . . . . .	.25	2.26	2.51	.11
In seclusion . . . . .	1.70	8.39	10.09	.45
Eating in dining rooms . . . . .	826.06	736.61	1,562.67	70.29
Eating in wards . . . . .	137.70	522.60	660.30	29.71
Fed by nurses . . . . .	12.69	84.02	96.71	4.35
Idle . . . . .	440.28	650.24	1,090.52	49.06
Employed . . . . .	523.48	608.97	1,132.45	50.94
Parole of grounds . . . . .	118.62	24.13	142.75	6.42
Out for exercise . . . . .	847.81	778.17	1,625.98	73.14
Noisy . . . . .	45.76	173.29	219.05	9.85
Violent . . . . .	.27	62.38	62.65	2.81
Destructive . . . . .	18.07	124.76	142.83	6.42
Soiled or wet . . . . .	88.82	172.19	261.01	11.74
Taking medicine . . . . .	12.06	25.04	37.10	1.67
Infirm . . . . .	361.25	412.17	773.42	34.79

The average daily number for the entire year is represented in each instance in the percentages given above, that is: the average daily number of patients in bed was 242.94, or 10.93% of the average daily number of patients in the wards of the hospital for the year, and the average daily number out for exercise was 1,625.98, or 73.14% of the same average daily population. The large percentage of bed cases shown, nearly eleven per cent, is explained by the fact that many senile and infirm cases, which cannot readily be removed to institutions outside of the metropolitan district, are of necessity received at the Boston State Hospital. This accounts in some measure for the large proportion of our patients who belong to the infirmary class, — about thirty-five per cent of the total number cared for. The continued shortage of trained nurses and attendants is partly responsible for the amount of restraint and seclusion as shown by the above table, although this is small. It will be noted that the proportion of our patients who go out for exercise daily is quite large, taking into consideration the percentage of infirm, including the bed patients, and a gratifying average daily number of patients is employed in useful occupations. The average daily number of noisy patients and the average daily number of violent patients are of considerable interest, the latter being somewhat at variance with popular ideas regarding institutions of this type.

#### GENERAL HEALTH OF THE HOSPITAL.

The health of the patients and employees has been good throughout the year, and the hospital has been free from epidemics and unusual illnesses with the exception of a few sporadic cases of scarlet fever, measles, and diphtheria, all of which made uneventful recovery. Various minor accidents and injuries occurred in the wards from time to time and were reported in the usual manner to the Board of Trustees and the Department of Mental Diseases.

Six hundred and twenty Wassermann examinations were made for us by the State Department of Public Health, — 496 blood serum and 124 cerebrospinal fluid. The treatment of neurosyphilis has been continued throughout the year, 1,011 treatments having been given to 43 patients, — an average of 23.51 treatments per patient. An account of this work is given on another page.

#### EMPLOYEES.

On September 30, 1927, there were 423 persons in the employ of the hospital. During the year, 356 were appointed, 356 resigned, and 12 were discharged. Seven hundred and seventy-nine persons occupied 464.5 positions, — a rotation of 1.67.



The average daily number of employees during the year was 437.01, with 5.78% of vacancies. The average daily number in the ward service was 249.03, with 6.73% of vacancies. The ratio of ward employees to patients was one to 8.93, and of all employees, one to 4.67. The shortage of employees has increased slightly during the year. A large number of visitors come to the hospital to see their relatives and friends, and it is difficult to give them proper attention with a too limited number of attendants and nurses. On many days there are eight or nine hundred visitors, and we have had as many as 1,119 on one day. The total number of visitors during the year was over 57,000. More graduate nurses among our employees would doubtless reduce the number of accidents, injuries and escapes of patients.

#### MEDICAL SERVICE.

Dr. E. C. Noble, who had been connected with the hospital since March 5, 1909, and who was appointed assistant superintendent on December 1, 1917, resigned on May 14, 1928, his health not being such as to permit of his continuing his duties here. To fill the vacancy thus created Dr. Roy D. Halloran was appointed assistant superintendent on May 28, 1928. Dr. Halloran is a graduate of Dartmouth College and received his degree in medicine from the College of Physicians and Surgeons at Columbia University, in 1920. After two years of hospital service in Newark, N. J., he was appointed assistant physician at this institution on April 1, 1922, and promoted to senior physician on December 1, 1923. On May 24, 1928, Dr. Janice Rafuse resigned from the position of assistant physician, to which she was appointed on November 1, 1926. Dr. Dorothy H. Read was appointed assistant physician on July 18, 1928. Dr. Read graduated from the high school at Attleboro, Mass., and received her degree in medicine from Tufts College Medical School in 1927. Previous to her appointment here she was interne for one year at the Worcester Memorial Hospital. On July 1, 1928, Dr. Carl A. DeSimone was appointed to the position of assistant physician to succeed Dr. George G. Kelly, who resigned in December. Dr. DeSimone was born in Boston and received his preliminary education in the public schools of Brighton and the degree of A.B. from Boston College. He is a graduate in medicine from the Boston University Medical School. Dr. DeSimone resigned on December 1, 1928, to take an appointment in a general hospital. Dr. Charles C. Korb, who was appointed assistant physician on December 9, 1927, resigned on October 1, 1928, to enter private practice. Dr. Leslie H. Leighton was appointed on October 24 to fill this vacancy. Dr. Leighton is a graduate of the Cambridge Latin and Tufts Pre-Medical schools, and received his medical degree from Tufts College Medical School in 1927. He came to this institution after one year as house officer at the Cambridge Hospital and six months in the same capacity in the Providence Lying-In Hospital, Providence, R. I. During the summer four clinical assistants were added to the staff for three months, all of them undergraduates of Tufts College Medical School. In February, 1928, the consulting staff of the hospital was augmented by the appointment of Dr. A. Myerson as consulting neurologist. Dr. Ralph A. Hatch resigned as consulting ophthalmologist in September, and was succeeded by Dr. Paul Chandler.

Staff meetings have been held as usual, alternating between the East Group and the West Group, with one meeting each month at the pathological laboratory. At these meetings an effort is made to present all new admissions, as well as cases about to leave the hospital on visit or cases to be discharged.

Dr. Irving J. Walker, of Boston, who has had charge of the surgical work of the hospital for several years, has visited the institution as usual and has performed such major operations as have been necessary. Various operations have also been done by Dr. Grace E. Rochford, consulting gynecologist.

The venereal clinic, directed successively during the year by Drs. Roy D. Halloran, Charles Korb, and Gerald F. Houser, assisted by Drs. Janice Rafuse and Carl A. DeSimone, extended the treatment of neurosyphilis by intravenous injections of tryparsamid to a group of patients larger than that of the previous year. This is described as one of the most successful specific drugs thus far used in this type of disease. Eight patients, who had previously received malaria or other forms of febrile treatment in this or some other clinic, were given regular and carefully controlled treatment along with those not previously treated in this manner. In

all, forty-one cases received nine hundred and ninety-one injections. About one half of these showed definite physical, mental and serological improvement. Approximately one quarter maintained their previous status, and the remainder showed evidence of more or less rapid deterioration. Analysis of the individual cases indicates that fully one third of the total number did not show closely corresponding clinical and serological changes, the former frequently demonstrating marked improvement while the latter were not noticeable, and vice versa. In some cases, while the serological findings improved, the clinical condition rapidly regressed. This coincides generally with the literature on the subject. Three patients, who were in advanced stages of neurosyphilis, deteriorated rapidly and died after only a few treatments. Eight have left the hospital on visit with their relatives and at least four of these are employed in some way. Of those in the hospital fourteen are regularly occupied. The results thus far tend to justify the opinion that tryparsamid warrants further trial. Two cases of vascular syphilis were given twenty intravenous injections of sulpharsphenamin, an arsenical which has also been used with some success in the treatment of neurosyphilis. It is easily administered, stable, and non-toxic. One of these patients refused treatment after only six injections. The other has shown thus far no serological improvement.

The study of the brain metabolism by comparison of products in blood withdrawn from the carotid artery and internal jugular veins in the neck and the basilic vein in the arm, a special method described in the report of two years ago, was continued extensively, under the direction of Dr. A. Myerson, during the past year, with the aid of the biochemical laboratory in the F Building, West Group. The specimens taken first from a group of dementia praecox cases were examined for the most common and most accurately measurable blood constituents, such as sugar, cholesterol, lecithin, fatty acids, urea nitrogen, non-protein nitrogen, calcium, chlorides, phosphates, and carbon dioxide. Some conception of the laboratory work involved may be gained from the fact that for each patient sixty tests were necessary. Wherever abnormal findings occurred, special investigations were made. In all but one of the twelve cases thus examined it was found that the blood sugar was definitely lower in the internal jugular vein than in the basilic vein and carotid artery. In nine cases the basilic blood contained the largest amount of sugar. To eliminate a possible error due to delay between the withdrawal of the three varieties of blood, simultaneous punctures were made in several of the cases before tested. As before, the internal jugular blood was decidedly lower in sugar. Control tests for normals, obtained from five employees who volunteered, gave similar results. Examination of a group of general paralytics and epileptics also indicated the same relative difference in the internal jugular blood sugar. It is expected that other types of mental conditions will be studied in this manner. Only a small number of cases of any kind are as yet available, and, therefore, no conclusions are possible, but the present findings point to a hitherto unpublished fact, of interest from a physiological standpoint. Some tests made before and during ether administration indicated that the sugar was increased in the carotid artery, internal jugular and basilic veins to an abnormal degree as anesthesia was prolonged. The internal jugular vein, as before, contained the lowest amount. Some tests were made before and after various forms of exercise but no consistent results were obtained. In the dementia praecox group the cholesterol and lecithin in the carotid artery, basilic and internal jugular bloods were not significantly different but were distinctly subnormal. The same tests in a variety of mental diseases among both male and female patients eating ward diets gave similar results. In an effort to find an explanation the blood cholesterols of this group were compared with those of patients eating employees' diets because of their special occupations. The latter tests fell within normal limits. The only explanation at present is that the ward diet is low in cholesterol-containing foods. A group of ten patients with various diagnoses have been given a measured diet of eggnog, which is rich in cholesterol, and after three to four weeks there is a general tendency toward a slight increase in the blood cholesterol. The carbon dioxide content was lower in the carotid artery than in the basilic and internal jugular veins in cases of dementia praecox, general paralysis and epilepsy. All the other products included in this investigation showed no significant variations

in the three types of blood and no deviations from the normal. The icteric index of the blood was determined in a variety of mental diseases, such as general paralysis, manic-depressive psychoses, manic and depressive types, dementia praecox, senile and alcoholic psychoses. With occasional exceptions, the findings were within normal limits. Gastric analyses are being made in depressed cases. In several, who take nourishment very poorly, there is almost a complete absence of free hydrochloric acid in the gastric juice. In one, who had practically recovered from her depression, the free hydrochloric acid was normal. Many of the routine tests during the summer and fall of 1928 were made with the assistance of Joseph L. Byrne, who has completed his third year at Tufts Medical School. On May 7, 1928, a report entitled "Some Results of Internal Jugular and Carotid Punctures", incorporating the early results in the study of the brain metabolism by Drs. A. Myerson and Roy D. Halloran, was read by Dr. Myerson before the Massachusetts Society of Neurology and Psychiatry. A report entitled "Acetic Anhydrid Sulphuric Acid Test for General Paralysis (Boltz Test)" by Drs. A. Myerson and Roy D. Halloran was published in the *Journal of Nervous and Mental Diseases*, Volume 68, No. 2, August, 1928. The Boltz test was described in the preceding annual report.

### OUT-PATIENT SERVICE.

The work of the Social Service Department has been continued during the past year under the direction of Miss Florence E. Armstrong. It has had greater stability than for some time, owing to the fact that there has been so little turn-over among the workers. There was one resignation, causing a vacancy which we were not able to fill for some time because of delay in obtaining candidates from the Civil Service list. The extent and intensity of the work of the department has been increased during the year. It has been the custom to handle for routine social investigation all cases admitted to the hospital for observation. These have had a considerable increase over the year before. At the same time, many more calls have come in for full social investigation upon cases regularly committed to the hospital. The result is that the greater part of the time of the department is given up to this work. Little is left for careful supervision of patients on visit. There are others in the hospital who might comfortably be adjusted in the community, but in whose behalf no pressure is brought to bear by relatives or friends. The task of the department is logically with these also. This distinctive contribution from the department to the hospital and to the State would be possible if the staff of workers were enlarged. We have had during the past year two students in training from the Smith College School of Social Work, and during the summer months one Radcliffe undergraduate. The early fall finds us with another student worker independent of any school, a graduate of Smith College. The following table shows the movement of patients under the supervision of the out-patient department:

	Males.	Females.	Totals.
In family care Sept. 30, 1927	0	10	10
On visit Sept. 30, 1927	80	114	194
On escape Sept. 30, 1927	5	0	5
On visit from family care Sept. 30, 1927	0	0	0
Dismissed to family care during the year	0	6	6
Dismissed on visit during the year	626	278	904
Dismissed on visit from family care	0	3	3
Escaped during the year	15	0	15
Admitted from family care during the year	0	6	6
Admitted from visit during the year	560	194	754
Admitted from visit from family care	0	1	1
Admitted from escape during the year	15	0	15
Admitted from family care and discharged	0	2	2
Admitted from visit from family care and discharged	0	0	0
Admitted from visit and discharged	67	95	162
Admitted from escape and discharged	1	0	1
In family care Sept. 30, 1928	0	7	7

Males. Females. Totals.

On visit Sept. 30, 1928 . . . . .	79	103	182
On escape Sept. 30, 1928 . . . . .	4	0	4
On visit from family care Sept. 30, 1928 . . . . .	0	2	2

The following is a summary of the social service work done during the year:

Total number of cases considered . . . . .			867
New cases, hospital . . . . .			292
New cases, school clinic . . . . .			76
New cases, community . . . . .			2
Renewed cases from previous years . . . . .			71
Renewed cases within the year . . . . .			35
Continued cases from previous year . . . . .			391
Cases closed during the year:			
Hospital . . . . .			351
School clinic . . . . .			70
Community . . . . .			2
Cases continued . . . . .			444
Sources of new cases:			
Referred by physicians:			
Hospital . . . . .			250
School . . . . .			76
Referred by community agencies . . . . .			6
Referred by friends and relatives . . . . .			2
Selected by Social Service . . . . .			53
Purposes for which cases were referred:			
Histories:			
Hospital patients . . . . .			151
School clinic cases . . . . .			76
Investigation:			
Conduct disorders . . . . .			18
Employment situations . . . . .			18
Home conditions . . . . .			53
Statements of patients . . . . .			11
Statements of others . . . . .			15
Full social investigation . . . . .			108
Court investigation . . . . .			11
Interval history . . . . .			8
Supplementary information . . . . .			19
Location of relatives . . . . .			63
Reports of patients on visit . . . . .			5
Supervision:			
In home . . . . .			93
In industry . . . . .			4
In community . . . . .			10
Care of patients' families . . . . .			12
Personal services . . . . .			47
Placement . . . . .			13
Problems in all cases:			
Disease:			
Mental . . . . .			408
Physical . . . . .			17
Sex problems:			
Prostitution . . . . .			2
Promiscuity . . . . .			6
Wayward tendencies . . . . .			13
Environment:			
Financial difficulties . . . . .			28
Employment difficulties . . . . .			25
Unsuitable surroundings . . . . .			21
Friction (family 30, others 9) . . . . .			39
Marital difficulties . . . . .			23

Personality problems:	
Temperament . . . . .	26
Anti-social habits . . . . .	34
Vaccillating interests . . . . .	3
Educational problems:	
Readjustment habits of mind . . . . .	34
Recreation; church; social relationships . . . . .	15
Legal problems:	
Concerning property or support . . . . .	10
Resulting from conduct of patient . . . . .	5
Nature of service rendered:	
Medical:	
Information relating to school history . . . . .	76
Information relating to medical history . . . . .	180
Information relating to home conditions . . . . .	135
Information relating to condition of out-patients . . . . .	147
Arrangements for medical assistance . . . . .	25
Social:	
Adjustments for patients:	
Environment . . . . .	25
Personal relations . . . . .	24
In industry . . . . .	16
In recreation . . . . .	4
Advice to relatives . . . . .	155
Advice to patients . . . . .	118
Advice to others . . . . .	38
Connecting with agencies . . . . .	46
Connecting with individuals . . . . .	25
Family assistance:	
Legal . . . . .	10
Financial . . . . .	4
Miscellaneous . . . . .	8
Arrangements for further study or training . . . . .	3
Personal services . . . . .	47
Placement work:	
Home . . . . .	41
Industry . . . . .	6
Total number of visits . . . . .	3,011
Supervision work:	
To patients on ward . . . . .	199
To patients on visit . . . . .	597
To relatives or friends . . . . .	423
To social agencies . . . . .	267
To others . . . . .	373
Investigation:	
To patients on ward . . . . .	35
To relatives or friends . . . . .	442
To social agencies . . . . .	202
To others . . . . .	473

#### PATHOLOGICAL LABORATORY.

The work of the laboratory has been carried on by Dr. Julius Loman, with the assistance of one laboratory technician. The following is a summary of the routine work of the pathological laboratory for the year: Autopsies, 106; blood examinations: cell counts, red, 23; cell counts, white, 27; cell counts, differential, 27; hemoglobin estimation, 23; bacteriological examinations, 15; cerebrospinal fluid examinations, including cell count, globulin, total protein, and colloidal gold tests, 48; examination of feces, 1; pathological examinations, 2; sections stained, 842; sputum examinations, 6.

The number of deaths during the year was 256, of which 106 came to autopsy, making the autopsy percentage 41.40 for the year, an increase of eight over the percentage for the preceding year.

The psychoses represented in cases coming to autopsy were as follows: Senile psychoses, 29; psychoses with cerebral arteriosclerosis, 28; general paralysis, 10; psychoses with other brain or nervous diseases, 6; psychosis with Huntington's chorea, 1; alcoholic psychoses, 5; psychoses with other somatic diseases, 3; manic-depressive psychoses, 5; involution melancholia, 1; dementia praecox, 14; paranoid condition, 1; psychoses with mental deficiency, 3.

The following were the causes of death: Aneurysm of aorta, 1; arteriosclerosis, general, 13; bronchopneumonia, 36; carcinoma of sigmoid, 1; carcinoma of uterus, 1; cardiorenal disease, 5; cerebral hemorrhage, 9; cystitis, acute, 1; empyema, 1; endocarditis, chronic, 3; enteritis, acute, 3; general paralysis, 2; lobar pneumonia, 1; meningitis, acute, 1; myocarditis, chronic, 4; pachymeningitis hemorrhagica interna, 1; peritonitis, acute, 1; pleurisy with effusion, 1; pulmonary abscess, 1; pyelonephritis, 1; septicemia (staphylococcus), 1; thrombosis of aorta, 2; thrombosis, coronary, 1; thrombosis of left auricle, 1; tubercular peritonitis, 1; tubercular ulceration of intestines, 1; tuberculosis, acute miliary, 1; tuberculosis, pulmonary, 9; volvulus of intestines, 1; no cause given, autopsy limited to head, 1.

Monthly staff meetings were held, with the presentation of interesting psychiatric and neurological cases, including the demonstration of gross and microscopic sections.

#### DENTISTRY.

The dental work of the hospital was carried on by Dr. Martin P. Rose, resident dentist, until his resignation on September 4, 1928, to enter private practice. He was succeeded, on September 30, by Dr. George S. Rileigh, a graduate of Tufts College Dental School. The department has had the services of a dental assistant throughout the entire year. Although it is not possible to do so in all cases, an effort is made to give each patient an examination at least twice during the year. Any conditions requiring attention are noted on the dental charts, and patients are given such treatment as may be found necessary. Ether has been used in some cases where the use of a local anesthetic was contra-indicated. The following is a summary of the work accomplished during the year: Alveolotomy, 1; curettements, 169; extractions, 1,056; fillings, 397; facial inflammatory gauze drain treatments, 20; medicinal treatments, 416; patients examined, 893; patients treated, 1,689; prophylaxis, 325; restorations, 36; setting of fracture, 1; sutures, 57.

#### HYDROTHERAPY.

The work of the hydrotherapy department of the hospital has been carried on during the year under the direction of Miss Frances N. O'Regan at the East Group and Mr. Perley M. Silver at the West Group, until his resignation, May 31, 1928. Five thousand two hundred and sixty-two continuous baths and 26,702 wet sheet packs were given, making the average daily number of continuous baths 14.38 and the average daily number of wet sheet packs 72.96. In addition to the above, the following treatments were given during the year: salt glows, 915; hair shampoos, 1,204; tub shampoos, 713; Swedish shampoos, 677; saline baths, 542; Sitz baths, 477; hot and cold to spine, 374; foot baths, 230; foot baths as preparatory treatment, 1,056; wet sheet packs as preparatory treatment, 258; vapor baths, 131; needle sprays, 5,304; fan douches, 5,063; massotherapy, 1,090. In this department instruction has also been given, consisting of 49 lessons. Fifty-two different persons were treated, with the following psychoses: psychosis with cerebral syphilis, 1; manic-depressive psychoses, 23; dementia praecox, 17; paranoia or paranoid condition, 2; involution melancholia, 1; epileptic psychosis, 1; psychosis with psychopathic personality, 1; psychoses with mental deficiency, 5; and undiagnosed psychosis, 1.

#### SCHOOL CLINIC.

Four hundred and seventy pupils were examined during the year. According to intellectual equipment these pupils were classified as follows: intellectually defective, 115, or 24.47%; borderline, 159, or 33.83%; dull normal, 100, or 21.28%; normal, 41, or 8.72%; superior normal, 1, or .21%; and undiagnosed, 54, or 11.49%. The total number of examinations made during the seven years since this work was organized were classified as follows:

	1922.	1923.	1924.	1925.	1926.	1927.	1928.	Total.
Total examinations . . . . .	372	349	295	414	355	486	470	2,741
Superior normal . . . . .	1	2	0	1	3	3	1	9
Normal . . . . .	53	24	16	39	22	52	41.	247
Dull normal . . . . .	69	80	65	75	65	115	100	569
Borderline . . . . .	104	125	108	136	126	162	159	920
Feeble-minded — upper . . . . .	85	75	79	85	92	98	88	602
Feeble-minded — lower . . . . .	49	29	24	50	11	47	27	237
Diagnosis deferred . . . . .	11	14	3	23	33	9	54	157

This table shows a total of 2,741 examinations, with the following classifications: superior normal, 9, or .33%; normal, 247, or 9.01%; dull normal, 569, or 20.76%; borderline, 920, or 33.56%; feeble-minded, upper range, 602, or 21.96%; feeble-minded, lower range, 237, or 8.65%; and diagnosis deferred, 157, or 5.73%.

To illustrate the nature of the problems dealt with in the school clinic, the following extracts from case records are cited:

S. Girl, age 10. School work poor. "Inattentive, quarrelsome, cries if corrected, a very difficult child." Examination showed this child overgraded for mental age (I. Q. 77), beginning chorea, visual defect, diseased tonsils, underweight, etc. All had noted that child was restless, but did not consider physical state. Thought her merely naughty. Explanation to teacher and parents brought proper medical and school treatment.

M. Boy, age 10, in Special Class. Undersized, speech and other physical defects and stigmata. Last year we recommended State School for Mental Defective; intelligence too low for special class. There being no vacancy at the school, M. was retained in Special Class against our advice. Re-examined this year; mental age 3.2; intelligence quotient 32. Teacher reports "troublesome, actions disturb and dirty habits disgust other pupils." Teacher a nurse-maid; not fair to other pupils. On our advice M. was excluded pending admission to State School. (Principals find it helpful to have State authority back of difficult decisions.)

C. Girl, age 15.9. Ninth grade Commercial. Ambition, stenographer. Teacher reports "failing work, dishonest, sulks if criticized, copies work." Failing to hand in book review, teacher said it must be done, and C. produced one. Called to read it, she stumbled on meaning and pronunciation, yet insisted that she wrote it herself. Finally, to get out of the dilemma, admitted that she had borrowed the book review from a girl in a former class. Examination showed C. to be attractive, well dressed, and without physical defects. A mental age of 10.5, I. Q. 66, explained the difficulty. Ninth grade work was being demanded from only fifth grade capacity, and as a result disposition and character were falling down under the strain. Advice given: To allow C. to leave school and become useful at home under careful supervision.

R. Boy, age 13.3. Tall, thin, pale, slouchy, no interest in school or sports. Work very poor, no friends, mean, sneaky, trips other pupils, taught sex practice to younger boy. Teacher considers him hopeless, possibly defective, and urges Special Class. Examination shows many physical defects: underweight, teeth carious, nose obstructed, etc. Mental age 15, I. Q. 113, superior normal. Further study revealed inferiority complex in worst form, developed on contrast with older brother "pride of family," a popular, aggressive boy. Parents and teachers had considered and treated R. as defective, and he reacted accordingly. Conference with parents and teachers resulting in the adoption of an active and constructive program brought about a remarkable change in this boy.

During a period of seven years (1922 to 1928), 2,741 children, or 1.836%, were examined as possibly retarded in a school enrollment of 149,040. Of those examined, the number found to be normal represented .166% of the total enrollment, the dull normal .38%, the borderline cases .617%, the feeble-minded, upper range, .404%, and the feeble-minded, lower range, .159%. In other words, 1.56% of the total enrollment were found to be dull normal, borderline, or feeble-minded cases. This is, of course, a strictly minimum per cent, owing to the selection exercised by teachers in referring pupils to the clinic for examination.

#### TRAINING SCHOOL FOR NURSES.

Ten graduates of the Boston State Hospital training school are now employed in the wards of the institution. The instruction of employees who are to care for

the patients in our wards is one of the most important objects of the nurses' training schools, but it is also desirable to graduate nurses who are qualified to care for psychiatric cases in the community. Training schools for nurses in State hospitals are, however, becoming more and more difficult to maintain. At the present time there are no pupils in our training school and no applications are being received from persons who meet the minimum requirements for entrance. Work in other fields is more attractive to graduate nurses, and we find continued difficulty in retaining graduates of our own school. If the standards of our hospitals are to be maintained, we must have more graduate nurses. The systematic instruction of attendants, both male and female, is being carried on along the lines prescribed by the committee on training schools, representing the Department of Mental Diseases.

#### OCCUPATIONS AND INDUSTRIES.

The work of the occupational therapy department was continued under the direction of Miss Clara H. Offutt, head occupational therapist, until August 1, 1928, when she resigned. She was succeeded on August 20 by Miss Helen Polk, who has had charge of the department since that time. Two assistants have been added to the personnel, which is now one head therapist and ten assistants. Two attendants are assigned to the department. The work is conducted in class rooms and on the wards, with three class rooms — two for the male patients and one for the female patients — in the West Group, and one for female patients in the East Group. The occupational therapy workers are greatly handicapped in working with the disturbed and acute male patients owing to the fact that the only available space for a class in their building is the dining-room. Within the past year the average number of patients attending classes was 1,085. Of this number 76 have been discharged, 12 transferred to other hospitals, and eight have died. The average daily number of patients occupied was 320, 85 male and 235 female. The greatest number of patients occupied on any one day was 349. The work for male patients consists of toy making, rug weaving, hooking, pattern weaving on a four-harness loom, rake knitting, painting toys and novelties, knotting key cord, basketry, and the manufacture of simple pieces of furniture. The work for female patients consists of weaving, basketry, sewing, hooking, knitting, rug making (braid and colonial), embroidery, rake knitting, crocheting, and mending garments. Two full days were taken to decorate the chapel in the East Group for Halloween. The patients assisted both in making the decorations and in arranging them. The value of the articles produced in this department is estimated at \$6,211.10.

The Occupational Therapy Center at Hopkinton is proving itself an institution which is becoming known throughout the State. Since the beginning, its policy has been to receive patients from all the hospitals, with the understanding that the respective social service departments supervise their own patients and satisfy themselves regarding the suitability of the life at Hopkinton. Gradually a confidence in the scheme has been established, with the result that during the past year patients have been admitted, not only from the Boston State Hospital, but also from the State hospitals at Worcester, Danvers, and Foxborough, while those at Medfield and Westborough, and the Boston Psychopathic Hospital, have discussed the cases of definite patients with a view of giving them the opportunities available at the Center. The Boston City Hospital has sent a patient from its nerve clinic, and the Community Health Association has also sought this means of solving some of its perplexing problems. The work thus assumes a definite preventive aspect as well as the convalescent one that is usually associated with it. It is reasonable to believe that the cases coming from these sources might otherwise eventually arrive in one of our State hospitals. The capacity of the house remains eleven, and it has maintained that number a large part of the year. We have had several conspicuously successful placements from the Center, and some returns to the hospital. Whatever the outcome of a trial at Hopkinton, those going there enjoy the life. All are engaged in occupational therapy, devoting as much time to it as appears suited to their individual physical and mental health. Incidentally it may be said that it is a reason for profound satisfaction that not a single case of serious physical illness has ever occurred there. The work produced last year brought in the sum of \$800, the receipts from the Christmas



sale alone amounting to over \$500. The Permanent Charity Fund has expressed its approval of the work to date by contributing \$525, an increase of \$25 over the previous year, which is appreciated. The committee in charge of the Center includes the following: Mrs. L. Vernon Briggs, Chairman; Mrs. Horatio Lamb, Mrs. Henry Tudor, Mrs. Douglas Thom, Mrs. Sydney Dreyfus, Mrs. Horace Morrison, Miss Mildred Bradley, and Dr. Arthur McGugan, Treasurer. The head social worker of the hospital is the Secretary.

The work of the industrial room for women has been carried on, as in the previous year, under the direction of Mrs. Madge B. Richardson. This consists of basketry, rug making, weaving, lace making, embroidery, knitting, sewing, crocheting, mending, etc. The estimated value of the articles produced during the year in this department is \$16,749 (\$3,110.30 in the industrial room and \$13,638.70 in the sewing room). The industrial work for men has been carried on under the continued direction of Mr. James F. Hurley. This is done entirely in the basement of the B Building in the West Group, and includes shoe repairing and various other repair work, the manufacture of several kinds of brushes, brooms, coat hangers, hats, and numerous other articles. The value of the articles produced during the year is estimated at \$15,607.70. The total valuation of articles produced during the year in the occupational and industrial departments of the hospital is \$38,567.80.

#### AGRICULTURAL ACTIVITIES FOR THE YEAR.

Mr. Ralph B. Littlefield was appointed head farmer on February 1, 1928, since which time he has had charge of the farming operations of the hospital. A total of 138 acres was under cultivation during the year. This consisted of 44 acres devoted to gardening, in addition to 87 acres of meadowland, 3 acres of field crops, and 4 acres of orchards and small fruits. The estimated value of farm products for the year was \$13,246.11.

#### FINANCIAL STATEMENT.

The maintenance appropriation for the year was \$828,500, with an additional appropriation of \$22,870.00, and \$25,773.10 brought forward from the preceding year, making a total of \$877,143.10.

	Amount Expended.	Per Capita.	Percentage of Total.
Personal services . . . . .	\$404,786.65	\$180.282	49.206
Travel, transportation and office expenses . . . . .	6,713.78	2.990	.816
Food . . . . .	186,951.32	83.264	22.726
Clothing and materials . . . . .	30,269.00	13.481	3.680
Furnishings and household supplies . . . . .	42,434.52	18.899	5.158
Medical and general care . . . . .	28,358.73	12.630	3.447
Religious instruction . . . . .	2,080.00	.926	.253
Heat, light and power . . . . .	63,666.96	28.355	7.739
Farm . . . . .	6,021.34	2.682	.732
Garage, stables and grounds . . . . .	5,794.68	2.581	.704
Repairs, ordinary . . . . .	16,282.21	7.252	1.980
Repairs and renewals . . . . .	29,279.71	13.040	3.559
Total . . . . .	\$822,638.90	\$366.382	100.000

Based on the average daily population of the hospital (2,245.30) the per capita cost of maintenance for the year was \$366.382, or \$7.007 per week. The per capita cost for the year 1927 was \$361.251, or \$6.947 per week. The type of patients cared for in this institution is an important factor in keeping up the cost of maintenance, about one third of the population being of the infirmary class, and a large percentage of bed patients. A large item in the cost of maintenance is the amount required for repairs to old buildings erected by the City of Boston many years ago. The old ward buildings, being made up of small units and consisting largely of single rooms, require a greater number of employees and more supervision than would otherwise be necessary. No buildings designed for purely custodial patients in considerable numbers have ever been erected at this institution.

#### GENERAL OPERATIONS FOR THE YEAR.

A summary of the miscellaneous activities of the hospital during the year, other than those already cited, leaves but little to be added. Our great problem has been to maintain an adequate personnel during the year with the funds available for that purpose, and to keep our buildings in repair as best we could. The suc-

cess attained along these lines has, of course, been determined entirely by the funds appropriated by the Legislature.

Religious services, both Protestant and Catholic, have been held regularly during the year, and the wards have been visited by the priest and by the rabbi, Rev. Moses L. Sedar. It was a source of great regret to all of us that Father Gallagher of St. Leo's parish, who has for several years looked after the spiritual welfare of the Roman Catholic patients in our care, was transferred in December to another field of activity. He was very well liked by all of those with whom he came in contact. His duties have been assigned to Rev. Martin S. Curran, of the parish of St. Andrew the Apostle, in Forest Hills, who has officiated since December 10. In May, Rev. Norman J. Raison, the Protestant minister, was transferred, and his work has been taken over by Rev. Harold H. Cramer, who succeeded him in the church at Mattapan.

The entertainment of our patients has not been neglected. Moving picture shows and dances have been continued in accordance with our custom. Occasionally special entertainments have been given. The radio service in various wards has been greatly appreciated by the patients, who show a great deal of interest in the programs. The usual Christmas entertainment, with music by the Boston Chamber Orchestra and a soprano soloist, was thoroughly enjoyed by the patients of both groups.

The hospital has been visited as usual from time to time by the Department of Mental Diseases and its various representatives, by the Lieutenant-Governor and the Executive Council, the Legislative Committee on Public Institutions, and by various agents of the Commission on Administration and Finance.

The group of physicians taking a special course of instruction in Public Health under the auspices of the Rockefeller fund visited the hospital in March. There have been various distinguished visitors during the year, among whom were Prof. Adolf Meyer, of Johns Hopkins University, Dr. Frankwood E. Williams, of the National Committee for Mental Hygiene, Dr. A. A. Brill, of New York City, Prof. Hans Maier, of the University of Zurich, etc.

The painting completed during the year was as follows: administration offices at West Group; interior and exterior of West B Building; basement of the West B Building; interior and exterior of the West F Building; interior of the West G Building; interior and exterior of the West Group kitchen and dining-room building; exterior of West Group nurses' home; exterior of buildings at piggery group; interior and exterior of farm house at the West Group; exterior of administration building at the East Group; interior of East A, B, and C buildings; exterior of East Group nurses' home; and exterior of the power house.

The old locks have been replaced in all but one or two of the buildings of the East Group.

The plumbing in the East A Building was rather extensively remodelled during the year.

The work of remodelling the first floor of the rear of the administration building in the West Group was completed during the summer, providing us with an operating and a waiting room for the dentist, an office for the matron, and a supervisor's office. Two additional toilets were rendered available for the use of the public.

The old wagon shed in the rear of the East Group barn was reshingled and repainted during the summer.

A new asphalt shingle roof was placed on the large barn in the East Group and the building was extensively repaired and repainted on the exterior.

Extensive leaks in the six-inch steam main running to the West Group on the north side of our property made it necessary to renew this entire line during the months of October and November. All of the couplings were removed, the line welded throughout, and new pipe installed wherever it was required. Magnesia pipe covering  $1\frac{1}{2}$  inches thick was used in insulating this line, which was then replaced in the 18-inch Akron split pipe conduit. The work was about ninety per cent complete on November 30. The cost of these alterations was \$26,794.41, of which \$20,000 was rendered available from the Governor's emergency fund by action of the Governor and Council. The remainder was made up by a reallocation of the money appropriated for various items under the maintenance appropriation for repairs and renewals.

An investigation showed that the six-inch steam main on the south or Harvard Street side of our property and running from the East to the West Group is in practically the same condition as the line which was replaced. It will be desirable to substitute for this entire line a new one of a larger size. This work should be done during the coming summer and an appropriation obtained for that purpose from the Legislature at its next session.

It is a pleasure to report that about 1,100 feet of six-foot angle iron fence has been erected during the months of October and November on Harvard Street, extending from Morton Street to the gate opposite the East C Building, where it meets the old stone wall. The whole of our property should be enclosed by this type of fence as soon as money can be obtained for the purpose and the work done by our limited number of employees.

The contractor for the Dorchester District has been dumping ashes throughout the year on the West Group land north of Harvard and west of Morton Street.

The new incinerator in the rear of the power house in the East Group was completed during the early months of the year.

Reference is again made to the need of permanent roadways between the East and West Groups, and the completion of roads leading to the various ward buildings.

The resignation of the assistant superintendent, Dr. E. C. Noble, referred to on another page, made it necessary to fill his position as treasurer of the Employees' Club. This was done by the assignment of the hospital treasurer, Miss Adeline J. Leary, to that responsibility. The club has continued to perform its functions to the great advantage of the hospital and the convenience of the patients, employees, and the general public. It affords an opportunity to visitors to buy lunches for themselves and others. It furnishes a reading room for employees during their hours off duty, and a place of recreation during the evening. It has been thoroughly enjoyed by the numerous employees of the hospital who have availed themselves of its advantages. The radio entertainments have been particularly enjoyed by a great many.

I regret to say that the channel of the Canterbury Branch of Stony Brook is badly obstructed again. It was cleaned out during the summer of 1926, but has received no care since that time.

An appropriation of \$180,000 was rendered available for the erection of an administration building by the Legislature during its 1928 session. It is necessary to submit the plans for all new construction to the Department of Mental Diseases, the Commission on Administration and Finance, the Governor, and the Executive Council. It was not possible to get final action on the plans for this building before the end of the fiscal year and no work can be done on it until 1929.

#### THE FIRE HAZARD.

I wish to refer again to the important recommendations made by the Board of Trustees of this hospital relating to fire prevention, as follows:

"1. Removing the old wooden administration building in the East Group, constituting as it does a distinct fire menace as a result of the existence of wooden stairways running from the basement to the attic, the presence of exposed electric wires and wires in wooden conduits in various parts of the building, and the necessity of housing a considerable number of persons in the attic, — a place where their lives would be placed in jeopardy by a serious fire;

"2. Providing for the removal of the old barn located a few hundred yards from the administration building above referred to, and containing a large amount of hay;

"3. Removing the other wooden buildings and sheds in this same neighborhood;

"4. Installing sprinklers and such other fire protection as may be needed to insure the safety of the six hundred and more patients in the old non-fireproof stucco buildings until such time as these buildings can be replaced by fireproof structures;

"5. Removing the old wooden farm building located in the West Group and housing in the neighborhood of twenty employees, the Building Inspector for the Department of Public Safety having refused to certify this structure for occupancy;

"6. The prompt adoption of such other measures for fire protection as may be deemed necessary by the proper authorities."

Reference should again be made to the following recommendations by the Fire Commissioner of the City of Boston in 1925: "That all the old buildings, wooden and stucco covered, should be demolished and buildings of first-class fireproof construction be erected in their stead." . . . "These recommendations which may appear extensive, are an urgent necessity and based on the nature of the occupancy, and the character of the construction which is hardly fit for persons of normal physical and mental condition."

All of the old stucco buildings, including the administration building in the West Group, the chapel in the East Group, the East A, E, and F buildings, and the West C and D buildings, should be replaced by fireproof structures. They are a source of danger to the hospital and in the event of extensive fire during the winter months, when the ground is covered with deep snow and we cannot be reached by the Fire Department of the City, could very readily lead to a serious loss of life.

#### DEVELOPMENT OF THE HOSPITAL.

I wish to call attention again to the fact that this hospital, intended to provide for two thousand patients, has no centrally located assembly hall large enough to provide for the needs of the hospital, no laboratory building, no industrial building, no buildings suitable for farm and other outside employees, no separate building for the care of tuberculous patients, and no reception building for the admission of new cases. This is a condition of affairs which probably does not exist in any other large hospital in Massachusetts.

Provision for accommodations for housing employees is very inadequate. The only building we have at this time for male ward employees is an attendants' cottage in the West Group, which takes care of only forty persons. Eighteen men are housed in the third floor of the West C Building, in quarters which are not fireproof and are highly undesirable; twenty men are housed in the third floor of the West D Building, where they have accommodations similar to those in the C Building; twenty-nine male employees are housed in the wards of the West D Building, in close proximity to the patients and in rooms which cannot be under proper supervision; eight men are also housed in the West G Building, which is our building for disturbed male patients. At the present time we have not rooms enough to accommodate our full number of male employees without using rooms designed originally for the care of patients. In all, between eighty and ninety employees are housed in attics which are not suitable for such purposes — an arrangement which adds materially to the difficulty of proper protection from fires.

Respectfully submitted,

NOVEMBER 30, 1928.

JAMES V. MAY, *Superintendent.*

#### VALUATION.

November 30, 1928.

##### REAL ESTATE.

Land, 233 acres . . . . .	\$609,508.00
Buildings . . . . .	2,587,499.21
	<hr/>
	\$3,197,007.21

##### PERSONAL PROPERTY.

Travel, transportation and office expense . . . . .	\$775.00
Food . . . . .	15,242.32
Clothing and materials . . . . .	27,862.62
Furnishings and household supplies . . . . .	254,640.61
Medical and general care . . . . .	8,429.43
Heat, light and power . . . . .	8,448.37
Farm . . . . .	7,703.44
Garage, stables and grounds . . . . .	6,615.95
Repairs . . . . .	10,566.38
	<hr/>
	\$340,284.12

##### SUMMARY.

Real estate . . . . .	\$3,197,007.21
Personal property . . . . .	340,284.12
	<hr/>
	\$3,537,291.33

## FINANCIAL REPORT.

To the Department of Mental Diseases:

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1928.

## CASH ACCOUNT.

<i>Income.</i>		<i>Receipts.</i>	
Board of Patients:			
Reimbursing . . . . .		\$114,606.54	\$114,606.54
Personal Services:			
Reimbursement from Board of Retirement . . . . .			273.62
Sales:			
Travel, transportation and office expenses . . . . .		\$144.69	
Food . . . . .		317.52	
Clothing and materials . . . . .		12.82	
Furnishings and household supplies . . . . .		35.08	
Farm:			
Pigs and hogs . . . . .		400.30	
Garage, stable and grounds . . . . .		8.04	
Repairs, ordinary . . . . .		59.40	
Total sales . . . . .			977.85
Miscellaneous:			
Interest on bank balances . . . . .		\$666.07	
Rent . . . . .		118.00	
			784.07
Total income . . . . .			\$116,642.08

## MAINTENANCE.

Balance from previous year, brought forward . . . . .		\$25,773.10
Appropriations, current year:		
Acts 1928, Chapter 127 . . . . .		828,500.00
Acts 1928, Item 446 . . . . .		20,000.00
Transfer . . . . .		2,870.00
Total . . . . .		\$877,143.10
Expenses (as analyzed below) . . . . .		822,638.90
Balance reverting to Treasury of Commonwealth . . . . .		\$54,504.20

## Analysis of Expenses.

Personal services . . . . .		\$404,786.65
Religious instruction . . . . .		2,080.00
Travel, transportation and office expenses . . . . .		6,713.78
Food . . . . .		186,951.32
Clothing and materials . . . . .		30,269.00
Furnishings and household supplies . . . . .		42,434.52
Medical and general care . . . . .		28,358.73
Heat, light and power . . . . .		63,666.96
Farm . . . . .		6,021.34
Garage, stable and grounds . . . . .		5,794.68
Repairs, ordinary . . . . .		16,282.21
Repairs and renewals . . . . .		29,279.71
Total expenses for Maintenance . . . . .		\$822,638.90

## SPECIAL APPROPRIATIONS.

Balance December 1, 1927 . . . . .		\$178.00
Appropriations for current year . . . . .		193,000.00
Total . . . . .		\$193,178.00
Expended during the year (see statement below) . . . . .		—
Reverting to Treasury of Commonwealth . . . . .		—
Balance November 30, 1928, carried to next year . . . . .		\$193,178.00

OBJECT.	Act or Resolve.	Whole Amount.	Expended During Fiscal Year.	Total Expended to Date.	Balance at End of Year.
Food trucks . . . . .	1927-138	\$4,000.00	....	\$3,822.00	\$178.00
Administration building . . . . .	1928-127	180,000.00	....	....	180,000.00
Sewer and water extension . . . . .	1928-127	13,000.00	....	....	13,000.00
		\$197,000.00	....	\$3,822.00	\$193,178.00

Balance reverting to Treasury of the Commonwealth during year (mark item with *) . . . . .		—
Balance carried to next year . . . . .		\$193,178.00
Total as above . . . . .		\$193,178.00

## PER CAPITA.

During the year the average number of inmates has been 2,245.30.  
 Total cost for maintenance, \$822,638.90.  
 Equal to a weekly per capita cost of \$7.0073 (52 weeks to year).  
 Receipt from sales, \$977.85.  
 Equal to a weekly per capita of \$0.0083.  
 All other institution receipts, \$115,664.23.  
 Equal to a weekly per capita of \$0.98523.  
 Net weekly per capita, \$6.0137.

Respectfully submitted,

ADELINE J. LEARY, *Treasurer.*

## STATISTICAL TABLES.

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION  
 PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES.

TABLE 1. *General Information.*

Data correct at end of hospital year, November 30, 1928.

1. Date of opening as a hospital for mental diseases, December 11, 1839.
2. Type of hospital: State, since December 1, 1908.
3. Hospital plant:

Value of hospital property:

Real estate, including buildings . . . . .	\$3,197,007.21
Personal property . . . . .	340,284.12

Total

Total acreage of hospital property owned: 233.074 acres.	\$3,537,291.33
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Total acreage under cultivation during previous year: 138 acres.

4. Officers and employees:

	Actually in Service at End of Year.			Vacancies at End of Year.		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	1	0	1	0	0	0
Assistant physicians . . . . .	7	4½	11½	2	½	2½
Total physicians . . . . .	8	4½	12½	2	½	2½
Stewards . . . . .	1	0	1	0	0	0
Resident dentists . . . . .	1	0	1	0	0	0
Pharmacists . . . . .	1	0	1	0	0	0
Graduate nurses . . . . .	0	12	12	6	12	18
Other nurses and attendants . . . . .	114	123	237	1	3	4
Occupational therapists . . . . .	0	7	7	0	0	0
Social workers . . . . .	0	4	4	0	2	2
All other officers and employees . . . . .	88	75	163	9	17½	26½
Total officers and employees . . . . .	213	225½	438½			

NOTE:—The following items, 5, 6, 7 and 8, are for the year ended September 30, 1928.

5. Census of patient population at end of year:

	Actually in Hospital.			Absent from Hospital but Still on Books.		
	M.	F.	T.	M.	F.	T.
White:						
Insane . . . . .	943	1,249	2,192	77	108	185
Mental defectives . . . . .	3	13	16	—	—	—
Alcoholics . . . . .	1	—	1	—	—	—
All other cases . . . . .	2	2	4	1	—	1
Total . . . . .	949	1,264	2,213	78	108	186
Other races:						
Insane . . . . .	26	27	53	5	4	9
Total . . . . .	26	27	53	5	4	9
Grand Total . . . . .	975	1,291	2,266	83	112	195

6. Patients under treatment in occupational-therapy classes, including physical training, on date of report
7. Other patients employed in general work of hospital on date of report
8. Average daily number of all patients actually in hospital during year

Males.	Females.	Total.
99	232	331
461	363	824
963.76	1,259.21	2,222.97

TABLE 2. *Financial Statement.*

See treasurer's report for data requested under this table.



TABLE 4. *Nativity of First Admissions and of Parents of First Admissions.*

NATIVITY.	PATIENTS.			PARENTS OF MALE PATIENTS.			PARENTS OF FEMALE PATIENTS.		
	M.	F.	T.	Fathers.	Mothers.	Both Parents.	Fathers.	Mothers.	Both Parents.
United States . . . . .	113	109	222	43	41	31	47	46	42
Austria . . . . .	—	1	1	—	—	—	2	2	2
Canada <sup>1</sup> . . . . .	15	22	37	22	27	19	20	23	18
Denmark . . . . .	1	1	2	1	1	1	1	1	1
England . . . . .	1	6	7	3	4	3	11	7	4
France . . . . .	—	—	—	2	1	—	—	—	—
Germany . . . . .	3	3	6	8	6	5	3	3	3
Greece . . . . .	1	—	1	2	2	2	—	—	—
Ireland . . . . .	28	50	78	63	64	57	92	93	85
Italy . . . . .	11	7	18	12	12	1	10	10	10
Norway . . . . .	1	—	1	1	1	1	—	—	—
Poland . . . . .	—	1	1	1	1	1	2	2	2
Portugal . . . . .	2	—	2	2	2	2	—	—	—
Russia . . . . .	7	8	15	7	8	7	9	8	8
Scotland . . . . .	—	2	2	1	—	—	4	4	2
South America . . . . .	1	—	1	—	—	—	—	—	—
Sweden . . . . .	2	4	6	3	2	2	4	4	4
Turkey in Asia . . . . .	1	1	2	1	1	1	1	1	1
Wales . . . . .	—	1	1	—	—	—	—	—	—
West Indies <sup>2</sup> . . . . .	—	1	1	—	—	—	1	1	1
Other countries . . . . .	3	3	6	4	4	4	3	3	3
Unascertained . . . . .	—	1	1	14	13	11	11	13	10
Total . . . . .	190	221	411	190	190	148	221	221	196

<sup>1</sup> Includes Newfoundland.<sup>2</sup> Except Cuba and Porto Rico.





TABLE 5. *Citizenship of First Admissions.*

	Males.	Females.	Total.
Citizens by birth . . . . .	113	114	227
Citizens by naturalization . . . . .	43	43	86
Aliens . . . . .	26	49	75
Citizenship unascertained . . . . .	8	15	23
Total . . . . .	190	221	411

TABLE 6. *Psychoses of First Admissions.*

PSYCHOSES.	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses . . . . .				1	—	1
2. Senile psychoses . . . . .				24	61	85
3. Psychoses with cerebral arteriosclerosis . . . . .				45	31	76
4. General paralysis . . . . .				14	7	21
5. Psychoses with cerebral syphilis . . . . .						
6. Psychoses with Huntington's chorea . . . . .						
7. Psychoses with brain tumor . . . . .				1	—	1
8. Psychoses with other brain or nervous diseases, total . . . . .				5	1	6
Other diseases . . . . .	5	1	6			
9. Alcoholic psychoses, total . . . . .				19	8	27
Delirium tremens . . . . .	1	—	1			
Korsakow's psychosis . . . . .	5	2	7			
Acute hallucinosis . . . . .	7	6	13			
Other types, acute or chronic . . . . .	6	—	6			
10. Psychoses due to drugs and other exogenous toxins, total . . . . .						
11. Psychoses with pellagra . . . . .						
12. Psychoses with other somatic diseases, total . . . . .				5	12	17
Exhaustion delirium . . . . .	—	1	1			
Cardio-renal diseases . . . . .	1	5	6			
Other diseases or conditions . . . . .	4	6	10			
13. Manic-depressive psychoses, total . . . . .				24	41	65
Manic type . . . . .	4	13	17			
Depressive type . . . . .	14	21	35			
Other types . . . . .	6	7	13			
14. Involution melancholia . . . . .				—	6	6
15. Dementia praecox (schizophrenia) . . . . .				11	9	20
16. Paranoia and paranoid conditions . . . . .				12	19	31
17. Epileptic psychoses . . . . .				3	3	6
18. Psychoneuroses and neuroses, total . . . . .				—	1	1
Neurasthenic type . . . . .	—	1	1			
19. Psychoses with psychopathic personality . . . . .				1	—	1
20. Psychoses with mental deficiency . . . . .				3	7	10
21. Undiagnosed psychoses . . . . .				18	13	31
22. Without psychosis, total . . . . .				4	2	6
Alcoholism without psychosis . . . . .	—	1	1			
Mental deficiency without psychosis . . . . .	2	—	2			
Others . . . . .	2	1	3			
Total . . . . .				190	221	411

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses.*

RACE.	Total.			Traumatic.			Senile.			With cerebral arterio-sclerosis.			General paralysis.			With cerebral syphilis.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	14	10	24	-	-	-	1	3	4	2	-	2	2	-	2	-	-	-
English	6	17	23	-	-	-	1	2	3	1	-	1	-	-	-	-	-	-
French	2	2	4	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
German	7	4	11	-	-	-	1	-	1	3	2	5	-	-	-	-	-	-
Greek	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew	10	9	19	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Irish	62	98	160	-	-	-	12	28	40	14	14	28	3	3	6	-	-	-
Italian <sup>1</sup>	12	10	22	-	-	-	1	-	1	4	-	4	1	-	1	-	-	-
Lithuanian	3	4	7	-	-	-	1	1	2	1	-	1	-	-	-	-	-	-
Portuguese	2	-	2	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-
Scandinavian <sup>2</sup>	4	5	9	-	-	-	-	2	2	1	2	3	-	-	-	-	-	-
Scotch	-	2	2	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup>	1	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed	58	47	105	-	-	-	6	18	24	15	11	26	8	4	12	-	-	-
Race unascertained	7	8	15	-	-	-	1	4	5	1	2	3	-	-	-	-	-	-
Total	190	221	411	1	-	1	24	61	85	45	31	76	14	7	21	-	-	-

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued.*

RACE.	With Huntington's chorea.			With brain tumor.			With other brain or nervous diseases.			Alcoholic.			Due to drugs and other exogenous toxins.			With pellagra.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	-	-	1	-	1	-	-	-	1	2	3	-	-	-	-	-	-
English	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
French	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Irish	-	-	-	-	-	-	1	-	1	11	4	15	-	-	-	-	-	-
Italian <sup>1</sup>	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-
Lithuanian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Scotch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup>	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Syrian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed	-	-	-	-	-	-	3	1	4	3	1	4	-	-	-	-	-	-
Race unascertained	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Total	-	-	-	1	-	1	5	1	6	19	8	27	-	-	-	-	-	-

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued.*

RACE.	With other somatic diseases.			Manic- depressive.			Involution melan- cholia.			Dementia praecox.			Paranoia and paranoid conditions.			Epileptic psychoses.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	1	1	4	-	4	-	-	-	1	-	1	1	1	2	-	-	-
English	-	-	-	1	4	5	-	1	1	-	3	3	-	4	4	-	-	-
French	-	-	-	-	-	-	-	-	-	-	1	1	1	-	1	-	-	-
German	-	-	-	1	1	2	-	-	-	-	-	-	-	1	1	1	-	1
Greek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew	-	1	1	3	4	7	-	-	-	4	1	5	-	-	-	-	-	-
Irish	5	4	9	4	20	24	-	3	3	1	4	5	4	9	13	-	1	1
Italian <sup>1</sup>	-	1	1	1	6	7	-	-	-	-	-	5	2	1	3	-	-	-
Lithuanian	-	-	-	-	1	1	-	-	-	-	-	-	1	1	2	-	-	-
Portuguese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Scotch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup>	-	-	-	-	1	1	-	-	-	-	-	-	1	1	2	-	-	-
Syrian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed	-	4	4	8	3	11	-	2	2	5	-	5	2	1	3	2	2	4
Race unascertained	-	1	1	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	12	17	24	41	65	-	6	6	11	9	20	12	19	31	3	3	6

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded.*

RACE.	Psycho- neuroses and neuroses.			With psycho- pathic personality.			With mental deficiency.			Un- diagnosed psychoses.			Without psychosis.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	-	-	-	-	-	-	-	-	1	3	4	-	-	-
English	-	-	-	-	-	-	-	2	2	2	1	3	-	-	-
French	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
German	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Greek	-	-	-	-	-	-	-	-	-	1	-	1	1	-	1
Hebrew	-	-	-	-	-	-	1	-	1	1	-	1	-	1	1
Irish	-	-	-	-	-	-	2	3	5	4	4	8	1	1	2
Italian <sup>1</sup>	-	-	-	-	-	-	-	-	-	1	2	3	-	-	-
Lithuanian	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-
Scotch	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Slavonic <sup>3</sup>	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Syrian	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Mixed	-	-	-	1	-	1	-	-	-	3	-	3	2	-	2
Race unascertained	-	-	-	-	-	-	-	-	-	2	1	3	-	-	-
Total	-	1	1	1	-	1	3	7	10	18	13	31	4	2	6

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES.	Total.			Under 15 years.			15-19 years.			20-24 years.			25-29 years.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
2. Senile . . . . .	24	61	85	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	45	31	76	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	14	7	21	-	-	-	-	-	-	-	-	-	2	-	2
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	5	1	6	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	19	8	27	-	-	-	-	-	-	-	-	-	1	-	1
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	5	12	17	-	1	1	1	-	1	-	1	1	-	-	-
13. Manic-depressive . . . . .	24	41	65	-	-	-	3	4	7	4	6	10	2	4	6
14. Involution melancholia . . . . .	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	11	9	20	-	-	-	1	-	1	6	2	8	3	3	6
16. Paranoia and paranoid conditions . . . . .	12	19	31	-	-	-	-	-	-	-	-	-	1	-	1
17. Epileptic psychoses . . . . .	3	3	6	-	-	-	1	-	1	1	1	2	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	3	7	10	-	-	-	-	-	-	-	-	-	1	1	2
21. Undiagnosed psychoses . . . . .	18	13	31	-	-	-	-	-	-	1	-	1	-	1	1
22. Without psychosis . . . . .	4	2	6	-	-	-	2	-	2	1	-	1	1	1	2
Total . . . . .	190	221	411	-	1	1	9	4	13	13	10	23	11	10	21

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued.*

PSYCHOSES.	30-34 years.			35-39 years.			40-44 years.			45-49 years.			50-54 years.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	1	1	-	-	-	1	1	2	3	-	3
4. General paralysis . . . . .	1	-	1	-	-	-	1	2	3	1	1	2	3	1	4
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	1	-	1	-	-	-	1	-	1	1	1	2
9. Alcoholic . . . . .	-	3	3	-	-	-	6	1	7	6	2	8	2	-	2
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	-	-	-	1	1	-	1	1	1	1	2	-	4	4
13. Manic-depressive . . . . .	4	5	9	2	8	10	1	5	6	1	4	5	4	1	5
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	2	2	-	1	1
15. Dementia praecox . . . . .	1	1	2	-	3	3	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	4	-	4	1	1	2	2	1	3	1	6	7	1	5	6
17. Epileptic psychoses . . . . .	-	-	-	-	1	1	1	-	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
19. With psychopathic personality . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	1	-	1	1	3	4	-	-	-	-	-	-	-	1	1
21. Undiagnosed psychoses . . . . .	3	3	6	2	1	3	3	-	3	1	1	2	1	2	3
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	15	12	27	7	19	26	15	10	25	13	19	32	16	16	32

TABLE S. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded.*

PSYCHOSES.	55-59 years.			60-64 years.			65-69 years.			70 years and over.			Unascertained.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	2	2	2	12	14	2	9	11	19	38	57	-	-	-
3. With cerebral arteriosclerosis . . . . .	5	6	11	6	6	12	11	3	14	19	14	33	-	-	-
4. General paralysis . . . . .	3	1	4	2	2	4	1	-	1	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	1	-	1	1	-	1	-	-	-
9. Alcoholic . . . . .	-	-	-	3	1	4	-	1	1	1	-	1	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	1	-	1	-	-	-	2	1	3	-	2	2	-	-	-
13. Manic-depressive . . . . .	3	1	4	-	2	2	-	-	-	-	1	1	-	-	-
14. Involution melancholia . . . . .	-	2	2	-	1	1	-	-	-	-	-	-	-	-	-
15. Dementia præcox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	-	1	1	1	4	5	1	1	2	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	3	1	4	2	1	3	1	-	1	1	3	4	-	-	-
22. Without psychosis . . . . .	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Total . . . . .	15	16	31	16	31	47	19	15	34	41	58	99	-	-	-

TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses.

Psychoses.	Total.			Illiterate.			Reads and Writes. <sup>1</sup>		Common School.		High School.		College.		Unascertained.	
	M.	F.	T.	M.	F.	T.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Traumatic . . . . .	1	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—
2. Senile . . . . .	24	61	85	—	15	—	—	4	11	—	—	—	—	—	4	11
3. With cerebral arteriosclerosis . . . . .	45	31	76	—	2	7	—	2	27	26	53	3	2	2	8	1
4. General paralysis . . . . .	14	7	21	—	—	—	—	1	8	7	15	—	—	—	3	—
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	5	1	6	—	—	—	—	—	4	—	4	1	—	—	1	—
9. Alcoholic . . . . .	19	8	27	2	—	—	1	1	11	7	18	3	1	—	1	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	5	12	17	—	—	—	—	—	2	9	11	2	—	—	2	1
13. Manic-depressive . . . . .	24	41	65	—	—	—	3	—	14	28	42	8	1	2	1	—
14. Involution melancholia . . . . .	—	6	6	—	—	—	—	—	6	4	4	2	—	—	—	—
15. Dementia praecox . . . . .	11	9	20	—	—	—	—	—	6	5	11	4	2	—	1	—
16. Paranoia and paranoid conditions . . . . .	12	19	31	2	2	4	4	3	6	12	18	2	2	2	1	—
17. Epileptic psychoses . . . . .	3	3	6	—	1	1	—	—	2	2	4	1	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	7	10	—	3	3	—	1	3	3	6	—	—	—	—	—
20. With mental deficiency . . . . .	—	3	3	—	—	—	—	—	9	7	16	3	—	—	—	—
21. Undiagnosed psychoses . . . . .	18	13	31	1	3	4	—	—	2	1	3	1	—	—	4	1
22. Without psychosis . . . . .	4	2	6	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	190	221	411	13	24	37	10	14	106	138	244	28	28	56	26	14

<sup>1</sup> Includes those who did not complete fourth grade in school.

TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES.	Total.			Urban.			Rural.			Unascertained.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	-	1	1	-	1	-	-	-	-	-	-
2. Senile	24	61	85	24	61	85	-	-	-	-	-	-
3. With cerebral arteriosclerosis	45	31	76	45	31	76	-	-	-	-	-	-
4. General paralysis	14	7	21	13	7	20	1	-	1	-	-	-
5. With cerebral syphilis	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor	1	-	1	1	-	1	-	-	-	-	-	-
8. With other brain or nervous diseases	5	1	6	5	1	6	-	-	-	-	-	-
9. Alcoholic	19	8	27	19	8	27	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases	5	12	17	5	12	17	-	-	-	-	-	-
13. Manic-depressive	24	41	65	24	41	65	-	-	-	-	-	-
14. Involution melancholia	-	6	6	-	6	6	-	-	-	-	-	-
15. Dementia praecox	11	9	20	11	9	20	-	-	-	-	-	-
16. Paranoia and paranoid conditions	12	19	31	12	18	30	-	-	-	-	1	1
17. Epileptic psychoses	3	3	6	3	3	6	-	-	-	-	-	-
18. Psychoneuroses and neuroses	-	1	1	-	1	1	-	-	-	-	-	-
19. With psychopathic personality	1	-	1	1	-	1	-	-	-	-	-	-
20. With mental deficiency	3	7	10	3	7	10	-	-	-	-	-	-
21. Undiagnosed psychoses	18	13	31	18	13	31	-	-	-	-	-	-
22. Without psychosis	4	2	6	4	2	6	-	-	-	-	-	-
Total	190	221	411	189	220	409	1	-	1	-	1	1

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES.	Total.			Dependent.			Marginal.			Comfortable.			Unascertained.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
2. Senile	24	61	85	6	24	30	14	36	50	1	-	1	3	1	4
3. With cerebral arteriosclerosis	45	31	76	14	8	22	26	23	49	4	-	4	1	-	1
4. General paralysis	14	7	21	2	-	2	10	6	16	2	-	2	-	1	1
5. With cerebral syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
8. With other brain or nervous diseases	5	1	6	1	-	1	4	1	5	-	-	-	-	-	-
9. Alcoholic	19	8	27	-	2	2	18	6	24	-	-	-	1	-	1
10. Due to drugs and other exogenous toxins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases	5	12	17	2	1	3	3	10	13	-	-	-	-	1	1
13. Manic-depressive	24	41	65	1	2	3	20	38	58	2	1	3	1	-	1
14. Involution melancholia	-	6	6	-	-	-	-	6	6	-	-	-	-	-	-
15. Dementia praecox	11	9	20	2	-	2	9	9	18	-	-	-	-	-	-
16. Paranoia and paranoid conditions	12	19	31	-	-	-	11	17	28	-	-	-	1	2	3
17. Epileptic psychoses	3	3	6	-	-	-	3	3	6	-	-	-	-	-	-
18. Psychoneuroses and neuroses	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
19. With psychopathic personality	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
20. With mental deficiency	3	7	10	-	4	4	3	3	6	-	-	-	-	-	-
21. Undiagnosed psychoses	18	13	31	1	8	9	16	3	19	-	-	-	1	2	3
22. Without psychosis	4	2	6	1	-	1	3	1	4	-	-	-	-	1	1
Total	190	221	411	30	49	79	143	163	306	9	1	10	8	8	16



TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES.	Total.			Abstinent.			Temperate.			Intemperate.			Unascertained.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	24	61	85	3	32	35	10	15	25	5	1	6	6	13	19
3. With cerebral arteriosclerosis . . . . .	45	31	76	5	19	24	19	8	27	14	1	15	7	3	10
4. General paralysis . . . . .	14	7	21	3	3	6	7	1	8	3	3	6	1	—	1
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1
8. With other brain or nervous diseases . . . . .	5	1	6	1	—	1	2	1	3	2	—	2	—	—	—
9. Alcoholic . . . . .	19	8	27	—	—	—	—	—	—	19	8	27	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	5	12	17	1	8	9	3	1	4	—	1	1	1	2	3
13. Manic-depressive . . . . .	24	41	65	13	22	35	10	17	27	1	1	2	—	1	1
14. Involution melancholia . . . . .	—	6	6	—	6	6	—	—	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	11	9	20	10	4	14	1	4	5	—	—	—	—	1	1
16. Paranoia and paranoid conditions . . . . .	12	19	31	2	7	9	7	7	14	3	4	7	—	1	1
17. Epileptic psychoses . . . . .	3	3	6	2	2	4	1	1	2	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—
19. With psychopathic personality . . . . .	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
20. With mental deficiency . . . . .	3	7	10	2	3	5	1	3	4	—	1	1	—	—	—
21. Undiagnosed psychoses . . . . .	18	13	31	5	5	10	4	5	9	5	1	6	4	2	6
22. Without psychosis . . . . .	4	2	6	3	—	3	—	1	1	1	1	2	—	—	—
Total . . . . .	190	221	411	51	111	162	65	65	130	54	22	76	20	23	43



TABLE 14. Psychoses of Readmissions.

PSYCHOSES.	Males.	Females.	Total.
1. Traumatic psychoses . . . . .	1	—	1
2. Senile psychoses . . . . .	—	3	3
3. Psychoses with cerebral arteriosclerosis . . . . .	2	2	4
4. General paralysis . . . . .	—	—	—
5. Psychoses with cerebral syphilis . . . . .	—	1	1
6. Psychoses with Huntington's chorea . . . . .	—	—	—
7. Psychoses with brain tumor . . . . .	—	—	—
8. Psychoses with other brain or nervous diseases . . . . .	—	—	—
9. Alcoholic psychoses . . . . .	4	2	6
10. Psychoses due to drugs and other exogenous toxins . . . . .	—	—	—
11. Psychoses with pellagra . . . . .	—	—	—
12. Psychoses with other somatic diseases . . . . .	—	—	—
13. Manic-depressive psychoses . . . . .	14	19	33
14. Involution melancholia . . . . .	—	—	—
15. Dementia praecox . . . . .	5	8	13
16. Paranoia and paranoid conditions . . . . .	—	4	4
17. Epileptic psychoses . . . . .	1	1	2
18. Psychoneuroses and neuroses . . . . .	—	—	—
19. Psychoses with psychopathic personality . . . . .	2	—	2
20. Psychoses with mental deficiency . . . . .	4	1	5
21. Undiagnosed psychoses . . . . .	5	2	7
22. Without psychosis . . . . .	—	—	—
Total . . . . .	38	43	81

TABLE 15. Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge.

PSYCHOSES.	Total.			Recovered.			Improved.			Unimproved.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	1	—	1	—	—	—	1	—	1
2. Senile . . . . .	2	6	8	—	—	—	2	3	5	—	3	3
3. With cerebral arteriosclerosis . . . . .	10	6	16	—	—	—	9	4	13	1	2	3
4. General paralysis . . . . .	4	1	5	—	—	—	3	1	4	1	—	1
5. With cerebral syphilis . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
9. Alcoholic . . . . .	12	5	17	9	3	12	3	1	4	—	1	1
10. Due to drugs and other exogenous toxins . . . . .	2	—	2	2	—	2	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	3	3	—	3	3	—	—	—	—	—	—
13. Manic-depressive . . . . .	24	49	73	18	18	36	6	28	34	—	3	3
14. Involution melancholia . . . . .	4	3	7	—	—	—	4	1	5	—	2	2
15. Dementia praecox . . . . .	9	6	15	—	—	—	7	6	13	2	—	2
16. Paranoia or paranoid conditions . . . . .	3	14	17	—	1	1	3	9	12	—	4	4
17. Epileptic psychoses . . . . .	—	2	2	—	1	1	—	—	—	—	1	1
18. Psychoneuroses and neuroses . . . . .	1	1	2	—	1	1	1	—	1	—	—	—
19. With psychopathic personality . . . . .	3	—	3	1	—	1	2	—	2	—	—	—
20. With mental deficiency . . . . .	3	7	10	3	—	3	—	4	4	—	3	3
21. Undiagnosed psychoses . . . . .	2	3	5	1	—	1	—	2	2	1	1	2
22. Without psychosis . . . . .	4	2	6	—	—	—	—	—	—	—	—	—
Total . . . . .	85	110	195	35	27	62	40	61	101	6	20	26

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Psychoses.*

CAUSES OF DEATH.	Total.			Senile.			With cerebral arterio-sclerosis.			Alcoholic.			Manic-depressive.			Involution melancholia.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious Diseases.</i>																		
Erysipelas . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Tuberculosis of the respiratory system . . . . .	10	13	23	1	2	3	-	-	-	-	-	-	-	2	2	-	1	1
Tuberculosis of other organs . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>General Diseases Not Included in Class I.</i>																		
Cancer and other malignant tumors . . . . .	-	3	3	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Nervous System.</i>																		
Meningitis (non-epidemic) . . . . .	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Cerebral hemorrhage, apoplexy . . . . .	5	14	19	1	2	3	3	9	12	-	-	-	-	1	1	-	-	-
General paralysis of the insane . . . . .	8	3	11	-	-	-	-	8	11	-	-	-	-	-	-	-	-	-
Epilepsy . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of the nervous system . . . . .	2	-	2	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
<i>Diseases of the Circulatory System.</i>																		
Endocarditis and myocarditis . . . . .	32	28	60	6	11	17	11	4	15	-	-	-	3	3	6	1	2	3
Arteriosclerosis of the arteries . . . . .	18	17	35	6	5	11	11	9	20	-	-	-	-	1	1	-	-	-
Other diseases of the respiratory system . . . . .	1	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
<i>Diseases of the Respiratory System.</i>																		
Bronchopneumonia . . . . .	22	47	69	6	22	28	6	8	14	1	6	7	1	3	4	-	1	-
Pleurisy . . . . .	2	4	6	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of the respiratory system (tuberculosis excepted) . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Digestive System.</i>																		
Diseases of the pharynx and tonsils . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Diarrhea and enteritis . . . . .	2	2	4	1	-	1	-	-	-	-	-	-	1	-	-	-	-	-
Hernia and intestinal obstruction . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of digestive system (cancer and tuberculosis excepted) . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Non-Veneral Diseases of Genito-Urinary System and Anæmia.</i>																		
Diseases of bladder . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
<i>External Causes.</i>																		
Other external causes . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	106	139	245	21	47	68	32	30	62	10	11	21	5	12	17	2	3	5

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses — Concluded.

CAUSES OF DEATH.	Dementia praecox.		Paranoia and paranoid conditions.		Epileptic psychoses.		Psycho-neuroses and neuroses.		With psychopathic personality.		With mental deficiency.		All other psychoses. <sup>1</sup>	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<i>Epidemic, Endemic and Infectious Diseases.</i>														
Erysipelas . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis of the respiratory system . . . . .	4	6	10	-	-	-	-	-	-	-	-	-	4	-
Tuberculosis of other organs . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	4
<i>General Diseases Not Included in Class I.</i>														
Cancer and other malignant tumors . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Nervous System.</i>														
Meningitis (non-epidemic) . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cerebral hemorrhage, apoplexy . . . . .	-	-	-	1	-	-	-	-	-	-	-	-	1	1
General paralysis of the insane . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epilepsy . . . . .	-	-	-	-	1	1	-	-	-	-	-	-	-	-
Other diseases of the nervous system . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	1	1
<i>Diseases of the Circulatory System.</i>														
Endocarditis and myocarditis . . . . .	1	3	4	1	-	1	-	-	-	-	2	1	4	8
Arteriosclerosis . . . . .	1	1	1	-	1	1	-	-	-	-	-	1	1	1
Other diseases of the arteries . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Respiratory System.</i>														
Pneumonia . . . . .	2	1	3	-	2	2	1	1	2	-	-	-	3	6
Lobar pneumonia . . . . .	1	1	1	-	1	1	-	-	-	-	1	-	-	-
Pleurisy . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of the respiratory system (tuberculosis excepted) . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Digestive System.</i>														
Diseases of the pharynx and tonsils . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diarrhea and enteritis . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-
Hernia and intestinal obstruction . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-
Other diseases of digestive system (cancer and tuberculosis excepted) . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-
<i>Non-Veneral Diseases of Genito-Urinary System and Anæmia.</i>														
Diseases of bladder . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>External Causes.</i>														
Other external causes . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	10	17	27	1	5	6	2	3	5	-	3	1	12	21

<sup>1</sup> Includes group 22, "without psychosis."



TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses — Concluded.

PSYCHOSES.	45-49 years.		50-54 years.		55-59 years.		60-64 years.		65-69 years.		70 years and over.		Unascertained.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	4	4	1	1	4	1	7	6	2	1	15	33	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	1	-	1	-	1	-	1	-	1	-	-	-	-	-
9. Alcoholic . . . . .	1	1	-	-	3	-	1	1	1	2	2	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	1	-	-	2	-	2	-	2	1	-	1	1	-	-
13. Manic-depressive . . . . .	-	-	1	-	-	1	-	2	1	2	2	4	-	-
14. Involution melancholia . . . . .	1	1	-	2	1	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	1	1	-	4	-	-	-	-	-	-	3	6	-	-
16. Paranoia and paranoid conditions . . . . .	-	-	-	2	1	-	-	-	2	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	1	1	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	9	6	5	12	11	6	10	20	15	14	40	59	-	-
				17			30				99			

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses.*

PSYCHOSES.	Total.		Less than 1 month.		1-3 months.		4-7 months.		8-12 months.		1-2 years.		3-4 years.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Traumatic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	21	47	—	8	12	15	—	7	—	6	—	9	3	6
3. With cerebral arteriosclerosis . . . . .	32	30	7	11	18	16	2	5	2	3	5	4	3	1
4. General paralysis . . . . .	10	11	1	—	—	—	1	3	1	2	2	2	2	3
5. With cerebral syphilis . . . . .	1	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	2	—	—	—	—	—	—	—	—	—	—	—	1
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	5	2	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	8	1	2	—	2	—	1	1	2	2	1	1	1	2
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	5	5	2	1	3	4	1	—	—	1	1	1	—	1
13. Manic-depressive . . . . .	12	17	1	3	—	1	—	—	—	1	2	2	—	—
14. Involution melancholia . . . . .	5	3	—	—	—	—	—	—	—	—	—	—	2	2
15. Dementia praecox . . . . .	10	27	—	—	—	—	—	—	—	—	1	1	2	—
16. Paranoia and paranoid conditions . . . . .	1	5	—	—	—	—	—	—	—	—	1	1	—	—
17. Epileptic psychoses . . . . .	2	3	—	—	—	—	—	—	—	1	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	3	1	—	—	—	—	—	—	—	—	—	—	1	—
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	106	139	17	23	40	48	14	11	25	9	7	16	9	21





TABLE 19. *Family Care Department.*

	Males.	Females.	Total.
Remaining in Family Care Sept. 30, 1927 . . . . .	—	10	10
On visit from Family Care Sept. 30, 1927 . . . . .	—	—	—
Admitted during the year . . . . .	—	5	5
Whole number of cases within the year . . . . .	—	15	15
Dismissed within the year . . . . .	—	8	8
Returned to institution . . . . .	—	6	6
Discharged . . . . .	—	2	2
On visit . . . . .	—	3	3
Returned from visit . . . . .	—	1	1
Remaining in Family Care Sept. 30, 1928 (inc. 2 on visit) <sup>1</sup> . . . . .	—	9	9
Supported by the State . . . . .	—	9	9
Private . . . . .	—	—	—
Self-supporting . . . . .	—	—	—
Number of different persons within the year . . . . .	—	5	5
Number of different persons admitted . . . . .	—	5	5
Number of different persons dismissed . . . . .	—	5	5
Average daily number in Family Care during the year . . . . .	—	9.63	9.63
Supported by the State . . . . .	—	9.63	9.63
Private . . . . .	—	—	—
Self-Supporting . . . . .	—	—	—
Visit from Family Care <sup>1</sup> . . . . .	—	—	—
Went out on visit during the year . . . . .	—	3	3
Returned from visit during the year . . . . .	—	1	1
On visit from Family Care Sept. 30, 1928 . . . . .	—	2	2

The Commonwealth of Massachusetts

MASS.  
DOCS.  
COLL.

ANNUAL REPORT

OF THE

TRUSTEES

FOR THE

BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1929

THE EIGHTY-NINTH ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION ON ADMINISTRATION  
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# BOSTON STATE HOSPITAL

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## TRUSTEES' REPORT.

*To His Excellency the Governor and the Honorable Council:*

The trustees of the Boston State Hospital have the honor to submit herewith their twenty-first annual report covering the year ended November 30, 1929.

The two vacancies in the membership of the Board which existed at the beginning of the year, one caused by the declination of reappointment in 1927 by Mr. David M. Watchmaker, and the other by the death of Mr. William F. Whittemore, were filled in February by the appointment of Mr. John A. Kiggen of Hyde Park, who had previously been a member of the Board, and of Dr. Albert Evans of Boston.

The trustees have maintained their general supervision of the hospital and its activities, have held their usual meetings and made their periodic inspections. They have received from the superintendent a monthly detailed report of the operation of the hospital, and have considered and acted upon the nominations of officers and recommendations contained in these reports. Six persons under complaint or indictment, who had been received for observation, have been brought before the Board for examination and have been returned to the Court.

## PATIENTS UNDER THE CARE OF THE TRUSTEES.

At the beginning of the year there were 2,224 patients in the hospital, 9 in private care, and 210 on visit or escape, a total of 2,443. At the close of the year the total number was 2,473, of whom 2,267 were in the hospital, 6 were in private care, and 200 on visit or escape.

## COST OF MAINTENANCE.

The amount allowed for maintenance for this year by the General Court was \$850,180, to which should be added \$23,717.74 brought over from the previous year. This has proved adequate for the necessary expenditures, except in the allowance for food, which was, however, supplemented by an authorized transfer from other items. The average number of vacancies in the personnel was about the same as in the previous year, and the efficiency of the work of the hospital is to this extent hampered. Vacancies in the medical staff are especially to be regretted. More suitable provision for the housing of the physicians is very much needed.

## ESTIMATES FOR MAINTENANCE.

The following are the estimates of the amount needed for maintenance for the ensuing year on the established salary scales and the established per capita allowance for a population of 2,250:

Personal service . . . . .	\$479,193.50
Religious instruction . . . . .	2,080.00
Travel, transportation, etc. . . . .	8,000.00
Food . . . . .	212,000.00
Clothing and materials . . . . .	32,000.00
Heat, light and power . . . . .	61,912.46
Medical and general care . . . . .	30,500.00
Furnishings and household supplies . . . . .	44,000.00
Farm . . . . .	8,000.00
Garage, stable and grounds . . . . .	6,000.00
Repairs, ordinary . . . . .	19,500.00
Repairs and renewals . . . . .	15,000.00
Total . . . . .	<u>\$918,185.96</u>

## NEW CONSTRUCTION.

The plans for the new Administration Building, for which an appropriation was made in 1928, were finally approved and construction was begun in August. It is expected that the building will be ready for use by the middle of the coming year.

The work on the renewal of the old steam lines and their extension to the Administration Building has been completed.

The acquisition of the parcel of land on Canterbury Street, which was owned by the Forest Hills Cemetery, is of great value to the hospital. It not only carries the boundary of our land to the street line, but gives to us for immediate use a house, a commodious barn, and several smaller buildings which were much needed.

## RECOMMENDATIONS.

The removal of the offices from the present Administration Building in the East Group will enable us to obtain additional residence quarters for officers and employees. This building, which is an aggregation of three houses, may well be separated into several units and two of them removed to more suitable locations.

As the present building has also served as the medical centre for the East Group, it is desirable that a small office building be constructed for this purpose and placed at a convenient location.

One difficulty in securing and retaining competent medical officers is our inability to furnish suitable residence accommodations. It is recommended that two cottages of an inexpensive type be provided for physicians.

The trustees renew their recommendation for an appropriation for a reception building, which is the principal need of the hospital. Such a building would not only increase our capacity, but would enable us to give to the newly admitted patients whose condition is susceptible of amelioration the intensive care and

treatment which would tend to shorten their stay in the institution. The number of such patients is surprisingly large, and it is a measure of economy as well as of humane service to do whatever is possible to facilitate their recovery.

HENRY LEFAVOUR

J. WALDO POND

KATHERINE G. DEVINE

JOHN A. KIGGEN

CHARLES B. FROTHINGHAM

ALBERT EVANS

EDNA W. DREYFUS

NOVEMBER 30, 1929.

*Trustees.*

## SUPERINTENDENT'S REPORT.

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1929, and the fiscal year ending November 30, 1929. Founded by the City of Boston in 1839, this marks the completion of its ninetieth year as a hospital for mental diseases, and the twenty-first year of its history as a State institution.

### MOVEMENT OF POPULATION.

The census of the hospital on September 30, 1928, was as follows: in the wards, men, 975, women, 1,291, total, 2,266; at home on visit, men, 79, women, 103, total, 182; boarding out, men, none, women, nine; and out on escape, men, four, women, none; making a total of 2,461, 1,058 men and 1,403 women, in the custody of the hospital.

Two hundred and ninety-one men and 361 women, a total of 652, were received during the year. This included the following: first admissions as insane, men, 195, women, 230, total, 425; readmissions as insane, men, 27, women, 51, total, 78; first admissions, temporary care, men, 32, women, 35, total, 67; readmissions, temporary care, men, 30, women, 27, total, 57; and transferred from other institutions, men, 7, women, 18, total, 25. Two hundred and eighty-nine cases, including 134 men and 155 women, were discharged during the year. Seventeen men and nine women, a total of 26, were transferred to other institutions. One hundred and forty-three men and 184 women, a total of 327, died during the year.

The census on September 30, 1929, was as follows: in the wards, men, 994, women, 1,285, total, 2,279; at home on visit, men, 55, women, 123, total, 178; boarding out, men, none, women, 7; and out on escape, men, 6, women, 1, total, 7; making a total of 2,471, 1,055 men and 1,416 women, in the custody of the hospital.

The total number of cases treated during the year was 3,113, 1,349 men, and 1,764 women.

The average daily number of patients for the statistical year was: men, 1,038.36, women, 1,398.38, total, 2,436.74. The average daily number in the wards was: men, 969.17, women, 1,280.49, total, 2,249.66, or 92.32 per cent of the whole number. The average daily number at home on visit was: men, 64.47, women, 109.13, total, 173.60, or 7.13 per cent. The average daily number boarding out was: men, none, women, 8.56, or .35 per cent. The average daily number out on escape was: men, 4.72, women, .20, or .20 per cent. The average daily number of committed cases was 951.58 men, 1,271.11 women, total, 2,222.69, or 98.80 per cent of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was: men, .019, women, .019, total, .038, or .001 per cent. The average daily number of temporary care cases was: men, 17.59, women, 9.38, total, 26.97, or 1.19 per cent. The average daily number of cases under complaint or indictment was: men, 13.15, women, 3.70, total, 16.85, or .75 per cent. Attention should be called to the fact that the average daily number given above for temporary care cases included emergency cases and those under complaint or indictment. The average daily number of epileptics was: 17.54 men, 14.57 women, total, 32.11, or 1.43 per cent. The average daily number of tuberculous patients was: men, 12.35, women, 36.16, total, 48.51, or 2.15 per cent. The average daily number of reimbursing cases was: men, 80.30, women, 196.59, total, 276.89. The average daily number of cases supported by the State was: men, 888.87, women, 1,083.90, total, 1,972.77.

The recovery rate, based on the number of all first admissions (492), was 16.83

per cent; based on the total number cared for during the year (3,113), 2.67 per cent; based on the average daily number in the wards (2,249.66), 3.69 per cent; and based on the total number of admissions for the year (652), 12.73 per cent.

The death rate, based on the total number cared for during the year, was 10.50 per cent; and based on the average daily number in the wards, 14.54 per cent. The death rate of the hospital is unusually large when compared with that of other hospitals of a similar character, as about 35 per cent of the population is of the infirm type, and nearly 10 per cent represents actual bed cases. This is due to the fact that the acutely ill, the senile and the infirm cases from the city cannot be readily transported to distant places, and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate.

Of the first admissions as insane, 211, or 49.64 per cent, were foreign born, and 330, or 77.64 per cent, were of foreign parentage on one or both sides. Eighty-one, or 19.06 per cent, were aliens. Citizenship was unascertained in 49, or 11.53 per cent. Of the 3,769 consecutive first admissions as insane, for the nine-year period beginning October 1, 1920, 1,860, or 49.35 per cent, were foreign born; 3,041, or 80.68 per cent, were of foreign parentage on one or both sides, 720, or 19.10 per cent, were aliens, and citizenship was unascertained in 406, or 10.77 per cent.

The average age on admission was 53.22; 178, or 41.88 per cent, were sixty years of age or over, and 101, or 23.76 per cent, were seventy years of age or over. For the nine-year period beginning October 1, 1920, the average age on admission was 51.76; 1,448, or 38.42 per cent, were sixty years of age or over; and 777, or 20.61 per cent, were seventy years of age or over.

The first admissions for the year, classified according to legal status, under the General Laws, were as follows:

	Males.	Females.	Totals.
Committed cases (sec. 51, ch. 123, G. L.) . . . . .	127	126	253
Voluntary admissions (sec. 86, ch. 123, G. L.) . . . . .	0	0	0
Emergency commitments (sec. 78, ch. 123, G. L.) . . . . .	0	2	2
Pending examination and hearing (sec. 55, ch. 123, G. L.) . . . . .	0	0	0
Acquitted of murder by reason of insanity (sec. 101, ch. 123, G. L.) . . . . .	0	1	1
Temporary care cases (sec. 79, ch. 123, G. L.) . . . . .	53	85	138
Observation cases (sec. 77, ch. 123, G. L.) . . . . .	15	16	31
Total . . . . .	195	230	425

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (sec. 51, ch. 123, G. L.), 59.53 per cent; emergency cases (sec. 78, ch. 123, G. L.), .47 per cent; acquitted of murder by reason of insanity (sec. 101, ch. 123, G. L.), .24 per cent; temporary care cases (sec. 79, ch. 123, G. L.), 32.47 per cent; and observation cases (sec. 77, ch. 123, G. L.), 7.29 per cent. For the nine-year period beginning October 1, 1920, the distribution of the 3,769 first admissions, classified according to legal status, was as follows: committed cases (sec. 51, ch. 123, G. L.), 2,754, or 73.07 per cent; emergency cases (sec. 78, ch. 123, G. L.), 52, or 1.38 per cent; temporary cases care (sec. 79, ch. 123, G. L.), 755, or 20.03 per cent; observation cases (sec. 77, ch. 123, G. L.), 183, or 4.85 per cent; and cases held under complaint or indictment (sec. 100, ch. 123, G. L.), 19, or .51 per cent. During the above period there was only one case pending examination and hearing (sec. 55, ch. 123, G. L.), one Boston Police case (chapter 307, Acts of 1910), and one case acquitted of murder by reason of insanity (sec. 101, ch. 123, G. L.). No voluntary cases (sec. 86, ch. 123, G. L.) have been received since 1921, during which year there were three.

The first admissions for the year included 253 committed cases. Of these, 6, or 2.37 per cent, were discharged; 5, or 1.93 per cent, were transferred to other hospitals for mental diseases; 49, or 19.37 per cent, died; and 193, or 76.28 per

cent, remained at the end of the statistical year.

Of the first admissions for the year, 2 were emergency cases, both of which were committed within a few days after admission.

One hundred and thirty-eight (138) of the first admissions during the year were temporary care cases, admitted under the provisions of section 79, chapter 123, General Laws. Of these, 131, or 94.93 per cent, were committed; 3, or 2.17 per cent, changed to emergency status (sec. 78, ch. 123, G. L.); 3, or 2.17 per cent, to observation status (sec. 77, ch. 123, G. L.); and one, or .73 per cent, remained in the hospital at the end of the year.

The first admissions for the year also included 31 cases admitted for observation under the provisions of section 77, chapter 123, General Laws, 25 of which were subsequently committed, and six remained in the hospital at the end of the statistical year.

One of the first admissions was received under the provisions of section 101, chapter 123, General Laws, being acquitted of murder by reason of insanity, and remained in the hospital at the end of the year.

Of the 425 first admissions for the year, the cause was unascertained or no cause given in 106 cases, or 24.94 per cent. In the 319 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 65, or 20.38 per cent; arteriosclerosis, 95, or 29.78 per cent; syphilis, 27, or 8.46 per cent; alcoholism, 26, or 8.15 per cent; involutional changes, 27, or 8.46 per cent; and traumatism, 5, or 1.56 per cent. There was a family history of mental diseases in 47, or 11.06 per cent, mental defects in 2, or .47 per cent, and nervous diseases in 10, or 2.35 per cent, of the first admissions. Of the 3,769 first admissions to the hospital since October 1, 1920, the cause was unascertained or no cause given in 1,125, or 29.85 per cent, of the cases. In the 2,644 cases *where a definite cause was assigned*, the etiological factors are classified as follows: senility, 571, or 21.59 per cent; arteriosclerosis, 606, or 22.92 per cent; syphilis, 341, or 12.90 per cent; alcoholism, 321, or 12.14 per cent; involutional changes, 181, or 6.85 per cent; and traumatism, 45, or 1.70 per cent. There was a family history of mental diseases in 594, or 15.76 per cent, mental defects in 60, or 1.59 per cent, and nervous diseases in 149, or 3.95 per cent, of the first admissions.

The forms of mental disease shown by the 425 first admissions for the year, briefly summarized, were as follows: senile psychoses, 66, or 15.50 per cent; psychoses with cerebral arteriosclerosis, 98, or 23.06 per cent; general paralysis, 24, or 5.64 per cent; alcoholic psychoses, 25, or 5.88 per cent; psychoses with other somatic diseases, 11, or 2.59 per cent; manic-depressive psychoses, 81, or 19.06 per cent; involution melancholia, 10, or 2.35 per cent; dementia praecox, 30, or 7.06 per cent; paranoia or paranoid conditions, 36, or 8.47 per cent; psychoses with mental deficiency, 14, or 3.30 per cent; undiagnosed psychoses, 8, or 1.88 per cent; and all other psychoses one per cent or less. Three, or .70 per cent, were without psychosis. The psychoses of all first admissions for the year are shown in Table No. 6 on page 29. The forms of mental disease shown by the 3,769 first admissions since October 1, 1920, are summarized as follows: traumatic psychoses, 18, or .48 per cent; senile psychoses, 588, or 15.60 per cent; psychoses with cerebral arteriosclerosis, 758, or 20.11 per cent; general paralysis, 312, or 8.28 per cent; psychoses with cerebral syphilis, 22 or .58 per cent; psychoses with Huntington's chorea, 4, or .11 per cent; psychoses with brain tumor, 8, or .20 per cent; psychoses with other brain or nervous diseases, 60, or 1.59 per cent; alcoholic psychoses, 263, or 6.98 per cent; psychoses due to drugs and other exogenous toxins, 14, or .37 per cent; psychoses with pellagra, 2, or .05 per cent; psychoses with other somatic diseases, 119, or 3.16 per cent; manic-depressive psychoses, 513, or 13.61 per cent; involution melancholia, 85, or 2.26 per cent; dementia praecox, 423, or 11.22 per cent; paranoia or paranoid conditions, 238, or 6.31 per cent; epileptic psychoses, 32, or .85 per cent; psychoneuroses and neuroses, 25, or .67 per cent; psychoses with psychopathic personality, 25, or .67 per cent; psychoses with mental deficiency, 101, or 2.68 per cent; and undiagnosed psychoses, 124, or 3.29 per cent. Thirty-five, or .93 per cent, were without psychosis. Attention should be called here again to the fact that the psychoses represented by our first admissions are not consistent with the admission rate shown by other



hospitals. This is due to the fact that the acutely ill, the senile, and the infirm cases from the City of Boston cannot be removed to distant institutions, and for that reason are brought here. It does not, of course, mean that the admission rates for manic-depressive insanity and for dementia praecox are lower in Boston. As a matter of fact, if the senile and arteriosclerotic cases are disregarded, it will be readily apparent that this is not the case.

The forms of mental disease shown by the readmissions for the year, briefly summarized, were as follows: senile psychoses, 5, or 6.41 per cent; psychoses with cerebral arteriosclerosis, 3, or 3.85 per cent; general paralysis, 1, or 1.28 per cent; psychosis with brain tumor, 1, or 1.28 per cent; psychosis with other brain or nervous disease, 1, or 1.28 per cent; alcoholic psychoses, 3, or 3.85 per cent; psychosis with other somatic disease, 1, or 1.28 per cent; manic-depressive psychoses, 33, or 42.31 per cent; dementia praecox, 15, or 19.23 per cent; paranoia or paranoid conditions, 6, or 7.69 per cent; psychoses with mental deficiency, 5, or 6.41 per cent; and without psychosis, 4, or 5.13 per cent.

Of these 78 readmissions, 37, or 47.44 per cent, were committed under the provisions of section 51, chapter 123, General Laws; 36, or 46.15 per cent, were temporary care cases (section 79, chapter 123, General Laws); 4, or 5.13 per cent, were observation cases (section 77, chapter 123, General Laws); and 1, or 1.28 per cent, pending examination and hearing (section 55, chapter 123, General Laws). No emergency cases (section 78, chapter 123, General Laws); no voluntary cases (section 86, chapter 123, General Laws); and no cases held under complaint or indictment (section 100, chapter 123, General Laws) were included in the readmissions for the year.

The following tables show the psychoses of the 425 first admissions for the year, classified according to legal status:

*Psychoses of Committed Cases (Section 51, Chapter 123, General Laws).*

	Males.	Females.	Totals.
Traumatic psychosis . . . . .	1	0	1
Senile psychoses . . . . .	4	24	28
Psychoses with cerebral arteriosclerosis . . . . .	33	15	48
General paralysis . . . . .	16	3	19
Psychoses with cerebral syphilis . . . . .	0	2	2
Psychosis with brain tumor . . . . .	1	0	1
Psychosis with other brain or nervous disease . . . . .	0	1	1
Alcoholic psychoses . . . . .	13	4	17
Psychosis due to drugs or other exogenous toxins . . . . .	1	0	1
Psychoses with other somatic diseases . . . . .	1	2	3
Manic-depressive psychoses . . . . .	22	34	56
Involution melancholia . . . . .	0	7	7
Dementia praecox . . . . .	14	7	21
Paranoia and paranoid conditions . . . . .	6	17	23
Epileptic psychoses . . . . .	1	2	3
Psychoneurosis or neurosis . . . . .	1	0	1
Psychosis with psychopathic personality . . . . .	0	1	1
Psychoses with mental deficiency . . . . .	7	3	10
Undiagnosed psychoses . . . . .	4	3	7
Without psychosis . . . . .	2	1	3
Total . . . . .	127	126	253

*Psychoses of Observation Cases (Section 77, Chapter 123, General Laws).*

	Males.	Females.	Totals.
Traumatic psychosis . . . . .	1	0	1
Senile psychoses . . . . .	1	3	4
Psychoses with cerebral arteriosclerosis . . . . .	2	0	2
General paralysis . . . . .	2	0	2
Psychosis with other brain or nervous disease . . . . .	1	0	1
Alcoholic psychoses . . . . .	3	0	3
Psychoses with other somatic diseases . . . . .	0	2	2
Manic-depressive psychoses . . . . .	1	4	5
Involution melancholia . . . . .	0	1	1
Dementia praecox . . . . .	1	1	2
Paranoia and paranoid conditions . . . . .	2	3	5
Psychoneurosis or neurosis . . . . .	0	1	1
Psychosis with mental deficiency . . . . .	1	0	1
Undiagnosed psychosis . . . . .	0	1	1
Total . . . . .	15	16	31

*Psychoses of Emergency Cases (Section 73, Chapter 123, General Laws).*

	Males.	Females.	Totals.
Dementia praecox . . . . .	0	2	2

*Psychoses of Temporary Care Cases (Section 79, Chapter 123, General Laws).*

	Males	Females	Totals
Senile psychoses . . . . .	2	32	34
Psychoses with cerebral arteriosclerosis . . . . .	27	20	47
General paralysis . . . . .	2	1	3
Psychoses with other brain or nervous diseases . . . . .	2	0	2
Alcoholic psychoses . . . . .	3	2	5
Psychosis due to drugs and other exogenous toxins . . . . .	0	1	1
Psychoses with other somatic diseases . . . . .	3	3	6
Manic-depressive psychoses . . . . .	6	14	20
Involution melancholia . . . . .	0	2	2
Dementia praecox . . . . .	2	3	5
Paranoia and paranoid conditions . . . . .	2	4	6
Epileptic psychosis . . . . .	1	0	1
Psychosis with psychopathic personality . . . . .	0	1	1
Psychoses with mental deficiency . . . . .	2	1	3
Undiagnosed psychoses . . . . .	1	1	2
Total . . . . .	53	85	138

*Diagnosis of Case Acquitted of Murder by Reason of Insanity*

	Males.	Females.	Totals.
Without psychosis . . . . .	0	1	1

Two hundred and forty-seven (247) temporary care cases (sec. 79, ch. 123, G. L.) were admitted during the year ending September 30, 1929. Of these, 167, or 67.61 per cent, were committed under the provisions of section 51, chapter 123, General Laws; 14, or 5.67 per cent, changed to observation status; none to voluntary status; 4, or 1.62 per cent, to emergency status; 48, or 19.43 per cent, were discharged; 10, or 4.05 per cent, died; and 4, or 1.62 per cent, remained at the end of the statistical year. Of the 48 discharges, none were discharged as recovered; 7, or 14.59 per cent, were discharged as improved; 31, or 64.58 per cent, as unimproved; and 10, or 20.83 per cent, as without psychosis.

Five emergency cases (sec. 78, ch. 123, G. L.), including 4 cases from section 79, were admitted during the year. Four of these were committed in accordance with section 51, chapter 123, General Laws, and one was discharged, as unimproved. None remained at the end of the statistical year.

Eighty-five observation cases (sec. 77, ch. 123, G. L.), including 14 cases from section 79, were admitted during the year. Of these, 32, or 37.64 per cent, were subsequently committed under the provisions of section 51, chapter 123, General Laws; 38, or 44.71 per cent, discharged; 3, or 3.53 per cent, died; and 12, or 14.12 per cent, remained at the end of the statistical year. Of the 38 discharges, 7, or 18.42 per cent, were discharged as recovered; 4, or 10.53 per cent, as improved; 1, or 2.63 per cent, as unimproved; and 26, or 68.42 per cent, as without psychosis.

Sixteen cases held under complaint or indictment (sec. 100, ch. 123, G. L.) were admitted during the year. Of these, 6 were discharged and returned to Court (1 as unimproved, and 5 as without psychosis) and 10 remained on the books of the hospital at the end of the statistical year.

No voluntary cases (sec. 86, ch. 123, G. L.) were admitted during the year.

One case pending examination and hearing (sec. 55, ch. 123, G. L.) was admitted during the year and was subsequently committed under the provisions of section 51, chapter 123, General Laws.

One case acquitted of murder on the grounds of insanity (sec. 101, ch. 123, G. L.) was admitted, and remained in the hospital at the end of the statistical year.

The following table shows the psychoses of all cases admitted as temporary care, all forms, and subsequently committed under the provisions of section 51, chapter 123, General Laws, for the nine-year period beginning October 1, 1920:

	Males.	Females.	Totals.
Traumatic psychoses . . . . .	4	1	5
Senile psychoses . . . . .	58	177	235
Psychoses with cerebral arteriosclerosis . . . . .	142	133	275
General paralysis . . . . .	42	13	55
Psychoses with cerebral syphilis . . . . .	6	5	11
Psychoses with Huntington's chorea . . . . .	0	2	2
Psychoses with brain tumor . . . . .	2	0	2
Psychoses with other brain or nervous diseases . . . . .	16	3	19
Alcoholic psychoses . . . . .	55	21	76
Psychoses due to drugs and other exogenous toxins . . . . .	1	4	5
Psychoses with pellagra . . . . .	0	0	0
Psychoses with other somatic diseases . . . . .	18	31	49
Manic-depressive psychoses . . . . .	68	128	196
Involution melancholia . . . . .	2	14	16
Dementia praecox . . . . .	58	60	118
Paranoia and paranoid conditions . . . . .	13	49	62
Epileptic psychoses . . . . .	5	4	9
Psychoneuroses and neuroses . . . . .	6	6	12
Psychoses with psychopathic personality . . . . .	8	8	16
Psychoses with mental deficiency . . . . .	18	20	38
Undiagnosed psychoses . . . . .	25	17	42
Without psychosis . . . . .	3	4	7
Diagnosis deferred . . . . .	1	1	2
Total . . . . .	551	701	1,252

The total number of insane cases discharged during the year was 186. Of this number, 70, or 37.63 per cent, were discharged as recovered; 86, or 46.24 per cent, as improved; 24, or 12.90 per cent, as unimproved; and 6, or 3.23 per cent, as without psychosis. Of the 70 recovered cases, 2, or 2.86 per cent, were cases of psychosis with cerebral arteriosclerosis; 10, or 14.28 per cent, alcoholic psychosis; 1, or 1.43 per cent, psychosis with other somatic disease; 48, or 68.57 per cent, manic-depressive psychosis; 1, or 1.43 per cent, involution melancholia; 1, or 1.43 per cent, psychoneurosis or neurosis; and 7, or 10.00 per cent, psychosis with mental deficiency. Of the 86 cases discharged as improved, 10, or 11.63 per cent, were cases of senile psychosis; 6, or 6.97 per cent, psychosis with cerebral arteriosclerosis; 8, or 9.30 per cent, general paralysis; 2, or 2.32 per cent, psychosis with cerebral syphilis; 2, or 2.32 per cent, psychosis with other brain or nervous disease; 6, or 6.97 per cent, alcoholic psychosis; 21, or 24.42 per cent, manic-depressive psychosis; 2, or 2.32 per cent, involution melancholia; 10, or 11.63 per cent, dementia praecox; 10, or 11.63 per cent, paranoia and paranoid conditions; 3, or 3.49 per cent, epileptic psychosis; 2, or 2.32 per cent, psychosis with mental deficiency; and 1, or 1.17 per cent each, psychosis due to drugs or other exogenous toxins, psychosis with other somatic disease, psychoneurosis or neurosis, and psychosis with psychopathic personality. Of the 24 cases discharged as unimproved, 2, or 8.33 per cent, were cases of senile psychosis; 3, or 12.50 per cent, psychosis with cerebral arteriosclerosis; 4, or 16.66 per cent, general paralysis; 8, or 33.33 per cent, dementia praecox; 3, or 12.50 per cent, paranoia and paranoid conditions; and 1, or 4.17 per cent, each, psychosis with other brain or nervous disease, psychosis with other somatic disease, involution melancholia, and psychosis with mental deficiency.

The following is a study of the entire hospital residence (including other institutions for mental diseases) of the cases discharged during the year: Two (2), or 1.07 per cent, were discharged after a residence of less than one month; 14, or 7.53 per cent, after a residence of from one to six months; 5, or 2.68 per cent, from six months to one year; 75, or 40.32 per cent, from one to two years; 29, or 15.59 per cent, from two to three years; 17, or 9.14 per cent, from three to four years; 8, or 4.30 per cent, from four to five years; 24, or 12.90 per cent, five to ten years; and 12, or 6.45 per cent, ten years or over. The average duration of hospital residence was three years, one month, and fourteen days.

Of the 314 deaths occurring during the year, 219, or 69.74 per cent, represented cases dying at the age of sixty or over. In 141, or 44.90 per cent, death occurred at the age of seventy or over. Of the 2,401 deaths occurring at the hospital during the nine year period beginning October 1, 1920, 1,644, or 68.47 per cent, were cases dying at the age of sixty or over; and in 878, or 36.57 per cent, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: bronchopneumonia, 160, or 50.96 per cent; arteriosclerosis, 40, or 12.74 per cent; tuberculosis of the lungs, 19, or 6.05 per cent; endocarditis and myocarditis, 50, or 15.92 per cent; general paralysis of the insane, 8, or 2.55 per cent; lobar pneumonia, 8, or 2.55 per cent; cerebral hemorrhage, 2, or .64 per cent; and cancer 4, or 1.27 per cent.

The psychoses represented by deaths occurring in the hospital during the year were as follows: senile psychoses, 86, or 27.39 per cent; psychoses with cerebral arteriosclerosis, 109, or 34.71 per cent; general paralysis, 23, or 7.32 per cent; psychoses with other brain or nervous diseases, 4, or 1.27 per cent; alcoholic psychoses, 16, or 5.10 per cent; psychoses with other somatic diseases, 8, or 2.55 per cent; manic-depressive psychoses, 21, or 6.70 per cent; involution melancholia, 6, or 1.92 per cent; dementia praecox, 23, or 7.32 per cent; paranoia and paranoid conditions, 9, or 2.87 per cent; psychoses with brain tumor, psychoses with psychopathic personality, and psychoses with mental deficiency, each 2, or .64 per cent; and epileptic psychoses, and without psychosis, each one, or .32 per cent. Of the 86 cases of senile psychosis dying in the hospital during the year, 49, or 56.98 per cent, were due to bronchopneumonia, and 18, or 20.93 per cent, to endocarditis and myocarditis. Of the 109 cases of psychosis with cerebral arteriosclerosis, death was due in 57, or 52.30 per cent, to bronchopneumonia, in 16, or 14.68 per cent, to endocarditis and myocarditis, and in 24, or 22.02 per cent, death was attributed directly to arteriosclerosis. Of the 23 cases of general paralysis, 12, or 52.17 per cent, were reported as dying from bronchopneumonia, and in 8, or 34.80 per cent, general paralysis of the insane was given as the cause of death. Of the 23 cases of dementia praecox, death was due in 10, or 43.48 per cent, to bronchopneumonia, and in 7, or 30.43 per cent, to pulmonary tuberculosis.

Of the 314 patients dying in the hospital during the year, the total duration of hospital residence was as follows: less than one year, 139, or 44.33 per cent; one to three years, 66, or 21.02 per cent; three to five years, 30, or 9.56 per cent; five to seven years, 26, or 8.28 per cent; seven to nine years, 11, or 3.50 per cent; nine to eleven years, 10, or 3.18 per cent; eleven to fifteen years, 11, or 3.50 per cent; fifteen to twenty years, 11, or 3.50 per cent; and twenty years or over, 10, or 3.18 per cent. The duration of hospital residence was ascertained in all cases during the year. The psychoses showing the longest hospital residence were as follows: alcoholic psychoses, one over 15 years and one over 19 years; manic-depressive psychoses, one each over 16, 18, and 23 years; dementia praecox, one each over 15, 16, 25, 31, 32, 36, and 39 years; and paranoia or paranoid condition, one over 26 years. The following shows the duration of hospital residence of all cases dying in the hospital during the nine year period beginning October 1, 1920: less than one year, 1,207, or 50.27 per cent; one to three years, 527, or 21.95 per cent; three to five years, 217, or 9.04 per cent; five to seven years, 127, or 5.29 per cent; seven to nine years, 85, or 3.54 per cent; nine to eleven years, 43, or 1.79 per cent; eleven to fifteen years, 97, or 4.04 per cent; fifteen to twenty years, 45, or 1.91 per cent; and twenty years and over, 51, or 2.12 per cent. In this total of 2,401 deaths, the duration of hospital residence was unascertained in 2, or .09 per cent.

The following general statistical information relating to ward service should be of interest:

	Males.	Females.	Totals.	Percentage.
Average daily population . . . . .	969.17	1,280.49	2,249.66	100.00
In bed . . . . .	114.89	141.42	256.31	11.39
Congregate dining room . . . . .	826.92	762.85	1,589.77	70.67
Eating in wards . . . . .	142.25	517.64	659.89	29.33
Fed by nurses . . . . .	13.88	74.65	88.53	3.93
Idle . . . . .	414.70	726.52	1,141.22	50.73
Employed . . . . .	554.47	553.97	1,108.44	49.27
Parole of grounds . . . . .	110.32	17.15	127.47	5.66
Out for exercise . . . . .	851.01	837.95	1,688.96	75.08
Noisy . . . . .	49.55	177.09	226.64	10.07
Violent . . . . .	.14	72.35	72.49	3.22
Destructive . . . . .	19.38	143.24	162.62	7.23
Soiled or wet . . . . .	89.97	177.49	267.46	11.89
Taking medicine . . . . .	21.47	51.66	73.13	3.25
Epileptic . . . . .	17.54	14.57	32.11	1.43
Tubercular . . . . .	12.35	36.16	48.51	2.15
Infirm . . . . .	372.64	407.06	779.70	34.66
In restraint . . . . .	2.02	4.63	6.65	.29
In seclusion . . . . .	2.61	6.27	8.88	.39

The average daily number for the entire year is represented in each instance in the percentages given above, that is: the average daily number of patients in bed was 256.31, or 11.39 per cent of the average daily number of patients in the wards of the hospital for the year, and the average daily number out for exercise was 1,688.96, or 75.08 per cent of the same average daily population. The large percentage of bed cases shown, over 11 per cent, is explained by the fact that many senile and infirm cases, which cannot be readily removed to institutions outside of the metropolitan district, are of necessity received at the Boston State Hospital. This accounts in some measure for the large proportion of our patients who belong to the infirmary class—about 35 per cent of the total number cared for. It will be noted that the proportion of our patients who go out for exercise daily is quite large, taking into consideration the percentage of infirm, including the bed patients, and a gratifying average daily number of patients is employed in useful occupations. The average daily number of noisy patients and the average daily number of violent patients are of considerable interest, the latter being somewhat at variance with popular ideas regarding institutions of this type.

#### GENERAL HEALTH OF THE HOSPITAL.

The health of the patients and employees has been good throughout the year with the exception of an epidemic of grippe or mild influenza, which extended from January 4 to March 11, 1929. There were 435 cases in all—385 patients, 44 employees, and 6 members of the medical staff and families. There were 29 deaths among the patients attributed directly to this cause. Minor accidents and injuries occurred from time to time and were reported in the usual manner to the Board of Trustees and the Department of Mental Diseases.

Six hundred and forty-six (646) Wassermann examinations were made for us by the State Department of Public Health—555 blood serum and 91 cerebrospinal fluid. There have been 435 treatments for neurosyphilis throughout the year, to 51 different patients, making an average of 8.53 treatments for each patient. A full account of this work is given on another page.

#### EMPLOYEES.

On September 30, 1928, there were 423 persons in the employ of the hospital. During the year, 527 were appointed, 480 resigned, and 41 were discharged. Nine hundred and fifty (950) persons occupied 464.5 positions—a rotation of 2.045. The average daily number of employees during the year was 439.27, with 5.82 per cent of vacancies. The average daily number in the ward service was 248.43, with 7.24 per cent of vacancies. The ratio of ward employees to patients was one to 9.05, and of all employees, one to 5.14. The shortage of employees has increased slightly during the year. A large number of visitors come to the hospital to see their relatives and friends, and it is difficult to give them proper attention with a too limited number of attendants and nurses. On many days there are eight or nine hundred visitors, and we have had as many as 1,138 in one day. The total number of visitors during the year was over 70,000. More graduate nurses among our employees would doubtless reduce the number of accidents, injuries and escapes of patients.

#### MEDICAL SERVICE.

On August 1, 1929, Dr. Roy D. Halloran, who was appointed Assistant Superintendent on May 28, 1928, resigned to accept an appointment as Assistant to the Commissioner of Mental Diseases, and Dr. Herbert E. Herrin was appointed Assistant Superintendent on the same date. Dr. Herrin was born in Augusta, Maine, was educated in the High School and the Coburn Institute at Waterville, and received his degree of M. D. from Tufts College Medical School in 1910. He served a year in the general hospital at Long Island, was on the staff of the New Hampshire State Hospital at Concord, for over nine years, and was appointed assistant physician at this hospital July 23, 1921, and promoted to senior physician on October 1, 1923. On December 20, 1928, Dr. Gerald F. Houser, appointed assistant physician on November 15, 1927, was promoted to the position of senior physician. Dr. Ilse R. Lauber was promoted from assistant physician to senior physician on February 25, 1929. Dr. Julius Loman, who had been in charge of

the pathological laboratory since his appointment on January 1, 1927, resigned on June 5, 1929. He was succeeded by Dr. Naomi Raskin, who was appointed senior physician and pathologist on July 1, 1929. Dr. Raskin, although born in Russia, is a citizen of the United States. She is a graduate in medicine of St. Vladimir University in Kiev, Russia, receiving her degree in 1918. She was on the staff at the Belchertown State School in 1923-1924, and previous to her appointment here was for some time senior physician and pathologist at the Taunton State Hospital. On August 5, 1929, Dr. Frederick LeDrew was appointed assistant physician to fill the vacancy created by the promotion of Dr. Lauber. Dr. LeDrew was born in Newfoundland, and has taken out first papers for United States citizenship. He received the degree of A. B. from Victoria College, Toronto, in 1919, the degree of A. M. from the University of Toronto in 1920, and the degree of M. D. from the same institution in 1926. He served for a year in the Toronto Hospital for Consumptives after graduation, and was for two years or more on the staff of the Ontario Hospital for Mental Diseases in Cobourg. Dr. James M. Montgomery was appointed assistant physician on August 25, 1929, to succeed Dr. Carl A. DeSimone, and resigned on November 11, 1929. Four clinical assistants, undergraduates of Tufts College Medical School, were added to the staff for the three summer months, as usual. There has been no change in the consulting staff during the year.

Staff meetings have been held as usual, alternating between the East Group and the West Group, with one meeting each month at the pathological laboratory. At these meetings an effort is made to present all new admissions, as well as cases about to leave the hospital on visit or be discharged.

The surgical work of the hospital has continued under Dr. Irving J. Walker, Dr. Charles C. Lund, and Dr. Grace E. Rochford, who have visited the institution as usual and performed such major operations as have been necessary. Dr. William E. Preble has rendered valuable service to the hospital in his capacity as internist and has been called in consultation on many occasions. During the year 314 patients were examined and treated by Dr. Paul Chandler in the eye clinic, and 104 patients were examined and treated by Dr. Edwin A. Meserve in the ear, nose and throat clinic.

The treatment of patients in the venereal clinic has been conducted by Dr. Gerald F. Houser, assisted by Dr. Leslie H. Leighton and Dr. Dorothy H. Read. Four hundred and thirty-five (435) treatments were given to 51 different patients, an average of 8.53 to each patient, and consisted of the following: 222 intravenous injections of tryparsamide to 37 patients, of whom 10 improved, 6 became worse, and 21 remained unchanged; 198 injections of sterile milk to 22 patients, of whom 6 improved, 7 became worse, and 9 remained unchanged; and 15 intravenous injections of sulpharsphenamin to 3 patients, of whom 2 improved and 1 remained unchanged. Marked febrile reactions have occurred following the injections of sterile milk, and it has been found that in order to obtain an effective reaction the whole milk must be used.

The research group working under the direction of the Department of Mental Diseases is comprised of the director, Dr. Abraham Myerson; his associate, Dr. Roy D. Halloran; Dr. William Dameshek, who is especially interested in the haematology of the psychoses; Dr. Julius Loman, who acts as general assistant in the research; and Miss Caroline Stephenson, who does the bio-chemical and general technical work. The research has, to a large extent, been built up around the new technic of the internal jugular puncture, by Myerson, Halloran, and Hirsch ("Technic for Obtaining Blood from Internal Jugular Vein and Carotid Artery"). The underlying idea of this technic is that blood coming directly from the brain can be studied morphologically and chemically in a way hitherto impossible. It has been shown that the brain is an active organ, utilizing sugar and oxygen in a way comparable to the use of these substances by the muscles. While of course this has been suspected, there has been no direct proof. Since it has been possible to take blood going to the brain and coming from the brain by this technic, it has been shown that the blood going to the brain has a distinctly higher amount of sugar and oxygen than blood coming from the brain. A comparable series of

studies on the muscles of the arm gave parallel or nearly parallel results. (A paper dealing with this subject has been sent to the Kaiser Wilhelm Institute in Munich at the request of the research division of that hospital, to be published in German and to stimulate interest in the research in Europe.) Second, haematological studies carried on in general paresis and in dementia praecox have shown that in general paresis very definite toxic changes occur in the white blood cells, presenting a characteristic blood picture, one by which we believe the disease can almost be identified by a carefully studied smear. In dementia praecox there are no characteristic blood changes, although there is evidence of a sluggishness of blood cell formation which may, however, be accounted for by the type of life which the dementia praecox patient usually lives. Third, work is now being carried on by a new technic on what is known as the sedimentation rate of red blood corpuscles. These studies have not as yet covered a sufficient number of cases to make formal or definite conclusions. There are, however, changes in the sedimentation rate, if not in the psychoses, in people confined at hospitals for the mentally sick. Fourth, there has been a large collection of negative results which, however, deserve publication and which will, therefore, be published. There is a striking uniformity of chemical content in blood derived from the various zones of the body. Thus, urea, non-protein nitrogen, calcium, phosphorus, and perhaps the fatty substances tend to be alike in the blood coming from the brain and the blood coming from the muscles. The sedimentation rate is on the whole similar throughout the body. This likewise applies to the specific gravity of blood, in which no significant difference from various sources has been found. It is the intention to concentrate in the next few months on the oxygen content of blood coming to and from the brain under various experimental conditions. Recent studies indicate the great importance of oxygen content of blood in various mental states, especially stupors. Up to date, the only publication on this work is a paper describing the technic of the internal jugular and carotid puncture, entitled "Technic for Obtaining Blood from Internal Jugular Vein and Carotid Artery", by Myerson, Dr. A., Halloran, Dr. Roy D., and Hirsch, Dr. H., in *Archives of Neurology and Psychiatry*, 17: 897-808, June 1927. A paper which will appear shortly in German, as indicated above, is "Sugar Content of the Blood Going to and from the Brain by the Technic of Internal Jugular and Carotid Puncture". A paper in process of publication, embodying mainly the work of Dr. Dameshek, is to be called "A Haematological Picture in General Paresis".

#### OUT-PATIENT SERVICE.

The supervision of patients in family care and out on visit, as well as the after care of cases discharged from the custody of the hospital, continue to be important functions of the out-patient department. Medical advice is given by members of the staff who are consulted by many persons coming to the hospital for assistance in matters concerning their own welfare or that of their family or relatives. Patients who are out on visit are required to report at the hospital at regular intervals for observation. Many former patients who have been discharged are kept under the supervision of our physicians and social workers, and the latter make frequent visits to patients who have been allowed to go home or who have left the hospital temporarily for family care. Some cases which appear for consultation are referred to their family physicians or to the Boston Psychopathic Hospital. Particular attention is being paid to the mental health of the children of patients who are returned to their families. The following table shows the movement of patients under the supervision of the Out-Patient Department:

	Males.	Females.	Totals.
In family care September 30, 1928 . . . . .	-	7	7
On visit September 30, 1928 . . . . .	79	103	182
On escape September 30, 1928 . . . . .	4	0	4
On visit from family care September 30, 1928 . . . . .	0	2	2
Dismissed to family care . . . . .	0	2	2
Went out on visit . . . . .	505	245	750
Went out on visit from family care . . . . .	0	0	0
Escaped . . . . .	11	3	14

Admitted from family care . . . . .	0	2	2
Admitted from visit . . . . .	463	139	602
Admitted from escape . . . . .	8	2	10
Admitted from visit from family care . . . . .	0	1	1
Admitted from family care and discharged . . . . .	0	0	0
Admitted from visit and discharged . . . . .	66	86	152
Admitted from escape and discharged . . . . .	1	0	1
Admitted from visit from family care and discharged . . . . .	0	1	1
In family care September 30, 1929 . . . . .	0	7	7
On visit September 30, 1929 . . . . .	55	123	178
On escape September 30, 1929 . . . . .	6	1	7
On visit from family care September 30, 1929 . . . . .	0	0	0

The following is a summary of the social service work done during the year:

Total number of cases considered . . . . .	753
New cases, hospital . . . . .	441
New cases, school clinic . . . . .	41
New cases, community . . . . .	11
Renewed cases from previous years . . . . .	105
Renewed cases within the year . . . . .	64
Continued cases from previous year . . . . .	91
Cases closed during the year . . . . .	645
Hospital . . . . .	582
School clinic . . . . .	63
Cases continued . . . . .	108

*Sources of new cases:*

Referred by physicians:

Hospital . . . . .	332
School clinic . . . . .	41
Referred by community agencies . . . . .	6
Referred by friends and relatives . . . . .	5
Selected by Social Service . . . . .	107
Initiative of patients . . . . .	2

*Purposes for which cases were referred:*

Histories:

Hospital patients . . . . .	281
School clinic cases . . . . .	70

Investigation:

Conduct disorders . . . . .	30
Employment situations . . . . .	37
Home conditions . . . . .	60
Statements of patients . . . . .	18
Statements of others . . . . .	40

Supervision:

In home . . . . .	52
In industry . . . . .	7
In community . . . . .	9
Care of patients' families . . . . .	12
Personal service . . . . .	58
Placement . . . . .	5
Full social investigation . . . . .	111
Court records . . . . .	37
Supplementary information . . . . .	49
Location of relatives . . . . .	57
Interval history . . . . .	17
Report of patients on visit . . . . .	5

*Problems:*

Disease:

Mental . . . . .	576
Physical . . . . .	49



Sex problems:	
Prostitution . . . . .	3
Promiscuity . . . . .	3
Wayward tendencies . . . . .	10
Environment:	
Financial difficulties . . . . .	28
Employment difficulties . . . . .	34
Unsuitable surroundings . . . . .	8
Friction (family 29, others 9) . . . . .	38
Marital difficulties . . . . .	22
Personality problems:	
Temperament . . . . .	26
Antisocial habits . . . . .	32
Vacillating interests . . . . .	2
Educational problems:	
Readjustment habits of mind . . . . .	33
Recreation; church; social relationships . . . . .	11
Legal problems:	
Concerning property or support . . . . .	9
Resulting from conduct of patient . . . . .	12
Resulting from conduct of others . . . . .	2
General problems:	
Alcohol . . . . .	38
Feeble-mindedness . . . . .	22
<i>Nature of service rendered:</i>	
Medical:	
Information relating to medical history . . . . .	413
Information relating to home conditions . . . . .	104
Information relating to condition of out-patients . . . . .	131
Arrangements for medical assistance . . . . .	11
<i>Social:</i>	
Adjustments for patients:	
Environment . . . . .	35
Personal relations . . . . .	13
In industry . . . . .	10
In recreation . . . . .	4
Advice to relatives . . . . .	186
Advice to patients . . . . .	101
Advice to others . . . . .	54
Connecting with agencies . . . . .	39
Connecting with individuals . . . . .	8
Family assistance:	
Legal . . . . .	6
Financial . . . . .	7
Miscellaneous . . . . .	7
Arrangements for further study or training . . . . .	2
Personal services . . . . .	76
Placement work:	
Home . . . . .	4
Industry . . . . .	6
<i>Total number of visits</i> . . . . .	3070
Supervision work:	
To patients on ward . . . . .	93
To patients on visit . . . . .	381
To relatives or friends . . . . .	135
To social agencies . . . . .	38
To others . . . . .	78
Investigation:	
To patients on ward . . . . .	70
To relatives or friends . . . . .	1059

To social agencies . . . . .	302
To others . . . . .	914

There have been several changes in the personnel of the social service department during the past year. One worker resigned to join the staff of the New Jersey State Hospital at Greystone Park, where she has supervision of several child guidance clinics. She was succeeded by a worker of experience in this State, who had been at the hospital during the year as a student from the Smith College School for Social Work. Another worker resigned to stay at home for a year, her place being filled by one who had been a student in training within the department during the year. A third vacancy occurred and has been filled. This is the first complete turnover in the staff in over a year. During the year the Smith College School for Social Work was represented by two students, and a student from the Simmons College School for Social Work was present for two months.

#### PATHOLOGICAL LABORATORY

The work of the laboratory, carried on by Dr. Julius Loman until his resignation in June, has been continued by Dr. Naomi Raskin, pathologist, with the assistance of one laboratory technician. The following is a summary of the routine work of the pathological laboratory for the year: Autopsies, 126; bacteriological examinations, 20; blood examinations: red counts, 71, white counts, 78, differential, 65, hemoglobin estimation, 67; blood cultures, 2; examination of feces, 1; sections stained: celloidin, 115, frozen, 58, paraffine, 937; spinal fluid examinations, 100; sputum examinations, 21; surgical specimens, 3; urinalyses, 1354.

The number of deaths during the year was 327, of which 126 came to autopsy, making the autopsy percentage 38.53 for the year.

The psychoses represented in cases coming to autopsy were as follows: Senile psychoses, 35; psychoses with cerebral arteriosclerosis, 52; general paralysis, 5; psychoses with cerebral syphilis, 2; psychosis with brain tumor, 1; psychosis with other brain or nervous disease, 1; alcoholic psychoses, 7; psychosis with other somatic disease, 1; manic-depressive psychoses, 7; dementia praecox, 8; paranoid condition, 2; psychosis with mental deficiency, 4; psychosis with psychopathic personality, 1.

The following were the causes of death: Asphyxia from food in larynx, 1; bronchopneumonia, 41; carcinoma of brain (metastatic), 1; carcinoma of the liver, 1; carcinoma of the pleura, 1; cholecystitis, acute purulent, 1; cholelithiasis with impacted stones in the common duct, 1; cirrhosis of the liver, 1; endocarditis, chronic, 12; enterocolitis, acute, 1; erysipelas, 2; gastroenteritis, acute, 1; general arteriosclerosis, 25; general arteriosclerosis with acute bronchitis, 1; general arteriosclerosis with acute cystitis, 2; general arteriosclerosis with chronic myocarditis, 2; general paralysis, 2; influenza, 1; intestinal obstruction, volvulus, 1; lobar pneumonia, 8; mastoiditis, acute, with secondary meningitis, 1; myocarditis, chronic, 12; myocarditis, chronic, with syphilis of the central nervous system, 1; myxedema, 1; pericarditis, acute purulent, 1; perinephritic abscess, 1; pernicious anemia, 1; pulmonary tuberculosis, 8; septicemia following abscess of the prostate, 1; thrombosis, coronary, 1; thrombosis of the mesenteric artery, 1; tubercular enteritis, 1; tuberculosis of the spine, 1.

A laboratory staff meeting was held, with demonstration of gross and microscopic specimens in a case of generalized carcinomatosis, with particularly interesting metastasis in the right occipital lobe.

#### DENTISTRY

The dental work of the hospital has been carried on throughout the year by Dr. George S. Raleigh, resident dentist, with the aid of a dental assistant. An effort is made to give each patient an examination at least twice during the year, although this is not possible in the majority of cases. Each new admission is thoroughly examined within a day after arrival, and his condition recorded upon dental charts, thus completing the physician's physical examination. Immediate attention is given those who require treatment upon arrival. General anesthesia has been

used in a great number of cases where the use of a local anesthetic has been contraindicated. Curetting all diseased sockets and suturing of the tissue have been regular procedures whenever necessary. Gauze drains have been used to a considerable extent whenever the operation required them. X-ray pictures have also been taken to help in diagnoses of suspicious conditions. The aim of the dental department is to preserve and restore, whenever possible, the masticatory apparatus as a whole. The following is a summary of the work accomplished during the year: Examinations, 907; extractions, 722; fillings, 243; medical treatments, 841; prophylaxis, 381; restorations, 101; patients treated, 2,424.

#### HYDROTHERAPY

Miss Frances N. O'Regan had charge of the hydrotherapy department at the East Group until her resignation May 25, 1929. She was succeeded by Mrs. Ina Mills on July 23, 1929. The work of the West Group has been carried on throughout the year by Mr. Clarence Pond. Five thousand three hundred and thirty-nine continuous baths and 24,066 wet sheet packs were given, to six hundred different patients, making the average number of continuous baths 8.89 and the average number of packs 40.11 per patient. The average daily number for the year was 14.63 continuous baths and 66.00 packs. The following treatments were given during the year: salt glows, 1,813; tub shampoos, 707; Swedish shampoos, 543; hair shampoos, 1,070; hot and cold to spine, 432; Sitz baths, 274; saline baths, 640; foot baths as preparatory treatments, 1,151; wet sheet packs as preparatory treatments, 127; fan douches, 3,500; needle sprays, 3,677; massotherapy, 172; vapor bath, 1; fomentations, 5; pail douches, 139; rain douches, 243; and colon irrigations, 75. Instruction was carried on as usual, and 56 lessons were given.

#### SCHOOL CLINIC

Since its establishment several years ago, the work of the school clinic has been carried on by Dr. Alberta S. B. Guibord, psychiatrist, with the assistance of one psychologist. Five hundred and two examinations have been made during the past year, classified as follows according to intellectual equipment: Feeble-minded, 102; borderline, 173; dull, 148; normal, 65; superior normal 4; diagnosis deferred, 10. As in the past years the schools in Everett and Somerville have been covered in the clinic work.

#### TRAINING SCHOOL FOR NURSES

There are now employed in the wards of the institution ten graduates of the Boston State Hospital training school. One of the most important objects of the nurses' training schools is the instruction of employees who are to care for patients in our wards, though it is also desirable to graduate nurses who are qualified to care for psychiatric cases in the community. Training schools for nurses in State hospitals are becoming more and more difficult to maintain. No applications are being received from persons who meet the minimum requirements for entrance to the training school here and it has had no pupils during the year. Graduate nurses find work in other fields more attractive, and we continue to have difficulty in retaining graduates of our own school. We must have more graduate nurses if the standards of our hospitals are to be maintained. The systematic instruction of attendant nurses, both male and female, is being carried on along the lines prescribed by the Committee on Training Schools, representing the Department of Mental Diseases, and the classes have numbered 312 pupils during the year.

#### OCCUPATIONS AND INDUSTRIES

The work of the occupational therapy department has been carried on throughout the year under the direction of Miss Ruth Spry who succeeded Miss Clara M. Offutt as head occupational therapist. Classes are held in classrooms in West C-2, G-1, and the basement of West F, as well as in nearly all of the wards. The work is adapted to the type of patients in the different buildings, and consists of wood work, weaving, rake knitting, basketry, painting, cord making, and leather work for men, and weaving, sewing, needlework, rug making, knitting, crocheting, designing, and basketry for women. The department consists of one head occupational therapist and eight assistants. Of the 1,420 patients who have come to the

department, 85 have improved enough to go home, 25 have been transferred to the industrial department, six have gone to other hospitals, three have been sent to the occupational therapy center at Hopkinton, and 21 have died. The average daily number occupied in the male wards was 103, and in the female wards 275, making a total daily average of 378. The highest number occupied on any one day was 520. In addition to the occupations noted above, games and exercises have been carried on in East C and weekly whist parties in the F Building have been very successful.

The number of patients at the Occupational Therapy Center at Hopkinton has varied during the year from seven to twelve. The reason for this is chiefly seasonal, as residence in the country is especially desirable in the summer months. The Center was established to care for selected recoverable cases from any State hospital, but it has also received patients from the nerve clinics of some of the general hospitals, showing that a real need is felt by these institutions for such a place in order that the commitment of certain patients to a State hospital may be avoided. An opportunity is provided for the study of patients in a homelike atmosphere, where the results in puzzling cases are more successful than those obtained in an institution environment. In addition to this laboratory aspect, the Center is also experimental in that some patients of whom hospitals are uncertain prove to be successful in their adjustments outside of the hospital and after a period of residence at Hopkinton continue their work in the community; some are found to be unadjustable and must return to the hospital; and others continue to make the Center a stopping place on the way from the hospital to their homes. Several of the latter have been cared for during the past year. The nature of the work performed at Hopkinton has remained unchanged. All of the women assist in the ordinary tasks about the house and all take part in the occupational therapy. The standard of work accomplished has been progressively higher in the last few years, and this year an unusually high level was reached. A sale of articles before Christmas brought in about five hundred dollars. The reputation of the work has spread and unsolicited orders are constantly being received, which add each month to the funds in the treasury. As has been customary, the money received from the sale of articles is used to defray the expense of materials purchased, and the amount remaining is paid to the patients for their work. Some extra charge is also made for overhead, and this is invested in the Central Fund, which is drawn upon to supplement the board of patients without resources. The amount of \$525 has again been contributed this year by the Permanent Charities Fund. The patients attend church regularly, and they are given the freedom of walks in the country, with some gardening in the spring, berry picking in the summer, and gathering leaves and pine cones in the fall. Christmas and other holidays are always observed with great festivity, and no birthday is ever overlooked. Towards the end of the year the active chairmanship of Mrs. L. Vernon Briggs, who has been the chief sponsor and benefactor of the Center, was given up, to our great regret. Mrs. Briggs' interest, however, is unfailing, and she has again made possible the employment of a full time occupational therapist throughout the year. The personnel of the Committee, which remains unchanged, is as follows: Mrs. L. Vernon Briggs, Miss Mildred Bradley, Mrs. Sydney Dreyfus, Mrs. Horatio Lamb, Mrs. Horace Morrison, Mrs. Douglas A. Thom, Mrs. Henry Tudor, Dr. Arthur McGugan, Treasurer. The head social worker of the hospital acts as Chairman.

Mrs. Madge B. Richardson has continued to have charge of the work of the industrial room for women. This consists of basketry, rug making, weaving, lace making, embroidery, knitting, sewing, crocheting, mending, etc. The estimated value of the articles produced during the year in this department is \$13,844.25 (\$3,200 in the industrial room and \$10,644.25 in the sewing room). The industrial work for men has been carried on under the continued direction of Mr. James F. Hurley. This is done entirely in the basement of the B Building in the West Group, and includes shoe repairing and various other repair work, the manufacture of several kinds of brushes, brooms, coat hangers, hats, and numerous other articles. The value of the articles produced during the year is estimated at \$14,126.41. The total valuation of articles produced during the year in the occupational and industrial departments of the hospital is \$27,970.66.

## AGRICULTURAL ACTIVITIES FOR THE YEAR

The work of the farm has been carried on throughout the year under the direction of Mr. Ralph B. Littlefield. A total of 138 acres was under cultivation during the year. This consisted of 50¾ acres devoted to gardening, in addition to 87 acres of meadowland, and ¼ acres of orchards and small fruits. The estimated value of farm products for the year was \$13,246.11.

## FINANCIAL STATEMENT

The maintenance appropriation for the year was \$850,180, with \$31,523.68 brought forward from the preceding year, making a total of \$881,703.68.

	Amount Expended	Per Capita	Percentage of Total
Personal Services	\$407,650.92	\$180.267	48.505
Travel, transportation and office expenses	6,487.50	2.868	.772
Food	210,577.18	93.119	25.056
Clothing and Materials	33,937.07	15.007	4.038
Furnishings and household supplies	42,713.03	18.888	5.082
Medical and general care	30,551.73	13.510	3.636
Religious instruction	2,080.00	.920	.247
Heat, light and power	53,220.14	23.534	6.332
Farm	6,446.36	2.852	.767
Garage, stables and grounds	6,743.45	2.982	.802
Repairs, ordinary	19,141.49	8.465	2.278
Repairs and renewals	20,880.02	9.233	2.485
Total	\$840,428.89	\$371.645	100.000

Based on the average daily population of the hospital (2,261.37), the per capita cost of maintenance for the year was \$371.645, or \$7.147 per week. The per capita cost for the year 1928 was \$366.382, or \$7.007 per week. The type of patients cared for at this hospital, over one third being of the infirmiry class, the necessity of frequent repairs to the old ward buildings, and the absence of a dairy are the most important reasons for the continued high cost of maintenance. In the old ward buildings with their small units and large number of single rooms, the patients require more supervision and consequently more employees than would be necessary under other conditions. No buildings designed for purely custodial patients in considerable numbers have ever been erected at this institution.

## GENERAL OPERATIONS FOR THE YEAR

Religious services have been held regularly during the year. Special reference should be made to the activities of Rev. Harold H. Cramer, who has conducted Protestant services, Rev. Martin S. Curran, who has looked after the welfare of the Roman Catholic patients in the hospital, and Rev. Moses L. Sedar, who has made frequent visits here on behalf of the Jewish patients. Rev. Albert C. Larned was designated early in the year by the Episcopal City Mission to act as chaplain for the patients of that denomination, and has visited regularly since that time.

Special attention has been given, as usual, to the entertainment of patients, and moving picture shows and dances have been continued in accordance with the well established custom of many years standing. Special entertainments of other types have been given from time to time. The Christmas entertainment during the holiday season was enjoyed by a large number of our patients. Nothing has been more greatly appreciated than the radio service, which now covers most of the buildings of both the East and the West Groups. Substantial additions have been made during the year to the patients' library.

The hospital has been visited from time to time by the Department of Mental Diseases and its various representatives, by the Executive Council, the Legislative Committee on Ways and Means, the Committee on Public Institutions, and by various agents of the Commission on Administration and Finance. The group of physicians taking the special course of instruction in Public Health under the auspices of the Rockefeller Fund also visited the hospital during the year.

The work of installing the new steam line running to the West Group on the north side of our grounds was completed during December, 1928.

The equipment of the West F Building with window guards was finished during the first part of the year, and the areaways in the rear of the building were covered with wire gratings.

A new meat-cutting room was constructed in the storehouse in the East Group

by using part of the space in the large flour room for that purpose. This has provided us with additional facilities for meat cutting which have been badly needed for many years.

As we have no building specially designed for the care of tuberculous patients, arrangements were made during the year to care for female patients suffering from that disease in Ward 6 of the West B building. We are still without any satisfactory place in which to care for the male tubercular cases.

As a result of the appropriation of \$40,000 at the last session of the Legislature for the purchase of the Forest Hills Cemetery land on the south side of Canterbury Street, the title to this property was acquired on July 2, 1929. Before the transfer was completed it was found to be necessary for the cemetery authorities to remove forty bodies which had been buried in that site from time to time many years ago. The buildings on this land are to be turned over to the State for formal occupancy on December 1, 1929.

Contracts were awarded by the Department of Mental Diseases on August 6th for a new administration building at the corner of Harvard and Morton Streets, and work on this site was commenced on August 19th. This construction was pushed so rapidly that the building will be under roof shortly.

Contracts were awarded by the Department of Mental Diseases on July 12, 1929, for the replacement of the steam line from the East to the West Group on the south side of the hospital, parallel to Harvard Street. This work was all completed by November 1, 1929.

The old horse-drawn wagons for the delivery of food in the East and West Groups were replaced during the year by two one and one-half ton trucks.

The replacement of the old locks in the East Group, referred to last year, was completed during the current year.

The verandas on the West Group nurses' home building were rebuilt during the year, and the entrances to the West C and D Buildings were repaired.

The painting completed during the year was as follows: in the East Group — the interior of the C Building and the interior of the storehouse; the exterior of the A and B Buildings; the interior and exterior of E Building; and the dining room in the basement of the G Building; in the West Group — the staff kitchen, all of the adjoining rooms, and the basement of the administration building, the interior of the G Building, and the interior of the West Group kitchen.

The filling in of the West Group land north of Harvard Street and west of Morton Street was completed during the summer months, material for this purpose having been furnished by the contractor who removed ashes from the Dorchester District of the City.

The channel of the Canterbury Branch of Stony Brook is still obstructed by an overgrowth of weeds. It has not been cleaned out since the summer of 1926.

#### FIRE PREVENTION

I wish to call attention once more to the recommendations made some time since by the Board of Trustees of this hospital relating to the necessity of additional measures for fire prevention:

"1. Removing the old wooden administration building in the East Group, constituting as it does a distinct fire menace as a result of the existence of wooden stairways running from the basement to the attic, the presence of exposed electric wires and wires in wooden conduits in various parts of the building, and the necessity of housing a considerable number of persons in the attic, — a place where their lives would be placed in jeopardy by a serious fire;

"2. Providing for the removal of the old barn located a few hundred yards from the administration building above referred to, and containing a large amount of hay;

"3. Removing the other wooden buildings and sheds in this same neighborhood;

"4. Installing sprinklers and such other fire protection as may be needed to insure the safety of the six hundred and more patients in the old non-fireproof stucco buildings until such time as these buildings can be replaced by fireproof structures;

"5. Removing the old wooden farm building located in the West Group and housing in the neighborhood of twenty employees, the Building Inspector for the

Department of Public Safety having refused to certify this structure for occupancy; "6. The prompt adoption of such other measures for fire protection as may be deemed necessary by the proper authorities."

In connection with this matter, the following reference should be made to the recommendations of the Fire Commissioner of the City of Boston in 1925 following the Scobey Hospital disaster: "That all the old buildings, wooden and stucco covered, should be demolished and buildings of 1st class fireproof construction be erected in their stead." . . . "These recommendations which may appear extensive, are an urgent necessity and based on the nature of the occupancy, and the character of the construction which is hardly fit for persons of normal physical and mental condition."

#### DEVELOPMENT OF THE HOSPITAL

There are many things which must be done at this hospital if it is to be brought up to date and placed on a level with the mental hospitals of today.

The grounds are not properly lighted at night, and our employees, who have to walk long distances to get to the street car line, have been assaulted from time to time in the dark.

A complete system of roads and walks has never been installed, and the attendants working in the West Group cannot get to the car line at certain seasons of the year without walking through the mud or snow.

The hospital has never been surrounded by a fence, and as a result of this our grounds are constantly overrun by people who destroy property here and steal our farm produce in large quantities. They have even gone so far, from time to time, as to remove it in trucks during the night.

We have over 600 patients housed in five stucco buildings which are not fireproof, and constitute a menace to the safety of the hospital. These buildings have wooden floors, wooden stairways, an obsolete system of electric wiring, and cannot be equipped with effective means of fire protection. Shortly after the disastrous Scobey Hospital fire, the Fire Commissioner of the City of Boston recommended that "All the old buildings, wooden and stucco, should be demolished and buildings of 1st class fireproof construction be erected in their stead."

One hundred and thirty-one (131) employees are housed in the ward buildings, in the immediate proximity of patients, many of a noisy and violent type. Eighty-six (86) of these employees are living in attics, some of which are unfinished in part and are not suitable for occupancy. They are, furthermore, living under conditions which would be highly undesirable, if not actually dangerous, in the event of fire. Buildings for the accommodation of these people should be provided for.

As a result of conditions representing various stages in the development of this institution, the power plant in the East Group furnishes the hospital with both direct and alternating current. Practically the entire East Group is furnished with direct current, and the West Group with alternating. The result is that we have to run two generators in the day time and two in the night, whereas one would otherwise be sufficient. Great economies could be effected by the erection of a new and modern type of power plant here.

Attention should be called to the fact that this hospital has no centrally located assembly hall large enough to provide for the needs of the whole hospital and furnish our patients with proper facilities for religious services, moving picture shows, entertainments, etc.

The hospital has never had a laboratory building. It has had no building for industrial or occupational therapy, no suitable or adequate quarters for employees, no separate accommodations for the care of tuberculous cases, and no reception building for the admission of new patients. To comply with the laws of the Commonwealth we need a paint shop in a separate building. We also need a new and larger greenhouse and a garage large enough to accommodate the cars and trucks belonging to the State, as well as to some of our medical officers and employees. Cottages should be erected for the steward, chief engineer, head farmer, various medical officers, etc.

In view of these facts, I would most respectfully suggest the advisability of starting upon some course of construction and development at this institution without any further loss of time. The procedure suggested is nothing more nor less than the completion of a program which should have been inaugurated and carried out many years ago. It is, of course, understood that this cannot all be done at once. For immediate consideration I would suggest the following:

*Reception Building, capacity about 125.*

The greatest need of the hospital at this time is a reception building. We now have facilities for the admission of 48 female patients in the G Building of the East Group — the most remote point from the center of our population. Male patients are admitted to the G Building in the West Group. This is the only building which we have for the housing of noisy, violent and destructive patients and it is very undesirable to receive new cases in a building of that type. This is a highly objectionable arrangement, as the new admissions should be taken care of in a separate building and provision made in such construction for the care of both male and female patients. It is recommended that a reception building be erected at a central location in the institution grounds, on the corner of Harvard and Morton Streets, at a place convenient to the Blue Hill Avenue trolley line.

This building is intended to furnish modern hospital facilities for the exhaustive examination, thorough observation, careful classification, and scientific treatment of all cases admitted. Administrative efficiency and economic considerations, as well as the desirability of systematic clinical researches, strongly suggest the advisability of the centralization of these facilities in one building. The wisdom of extending the advantages of this intensive study and treatment to as large a number of newly admitted patients as possible would seem to be fairly obvious. Certainly these opportunities should be offered to all who can be materially benefited by them. It will, I think, be conceded that we should return to the community as many patients as we can without any contact with the purely custodial cases destined to have a permanent residence in the so-called "continued treatment" groups. The superior advantages and opportunities for study and treatment available in the reception building should be extended to the maximum number of those who may possibly profit from a brief period of observation. The fact that 34.59 per cent of our admissions have been discharged after a period of less than six months, and 43.6 per cent after a stay of less than one year points very strongly to the wisdom of such a policy. A careful analysis of the new admissions, day by day, during the eighteen months ending September 30, 1928, shows that a building which would have made it possible to give all cases six months supervision would necessarily have a capacity of at least two hundred, that number being less than the maximum in residence at any time during that period.

*Removing, Remodelling, and Replacement of the East Group Administration Building.*

The occupancy of the new administration building next summer will render it desirable to do something regarding the disposition of the old administration building in the East Group. One of the principal reasons for the erection of the new building was the necessity of doing away with the serious fire menace which has existed in the East Group for many years. The purchase of the Forest Hills Cemetery land will make it possible for us to remove the old barn, but it does not dispose of the old administration building, which houses approximately forty people, twenty-two of whom are in the third or attic floor. The removal of this building was, as you know, urgently recommended by the Fire Commissioner of the City of Boston, after the Scobey Hospital disaster. It is constructed of wood throughout and is built in three sections. There is no means of communication on the third floor between these various sections — a complication which would lead to serious difficulties in the event of a fire. The wooden stairways and wooden laundry shutters running from the basement to the attic would make it difficult, if not impossible, for the fire department to do anything towards saving the building. It has exposed electric wires and wires in wooden conduits, as well as wires in mental conduits. The removal of the administrative forces will render a considerable portion of this building useless — parts of which cannot be remodelled to good advantage. The building is in very close proximity to other wooden and stucco buildings and a fire in it would seriously threaten the lives of the patients in this



Group, where we have over six hundred beds. There is even a direct communication between this building and the ward buildings by means of wooden corridors. In view of all these facts, no time should be lost, after the new administration building has been completed, in the removal of the old building, and I would accordingly request that the Department look over this situation and suggest what plan of procedure should be followed.

The building, if demolished, must be replaced. After the completion of the new administration building on Morton Street, it will be necessary for us to have a medical center of some kind in the East Group, with accommodations for three assistant physicians, a pathologist, and two clinical assistants, as well as a kitchen and dining rooms for twenty employees now eating in the old administration building. We also have to furnish quarters for about twenty single men, forty-five single women, and six married couples, in separate buildings.

In the event of its being considered undesirable to remodel these buildings and make further use of wooden structures, I would suggest the removal of the old administration building, substituting for it fireproof brick buildings to serve the purposes enumerated above. This would, of course, cost much more.

*Two Cottages for Physicians.*

The necessity of additional quarters for the medical staff at this hospital is very urgent. At the present time we have a vacancy for one assistant physician. We can furnish accommodations for such an appointee only by putting him in the same room with the last doctor who came here or by assigning him to quarters in the nurses' home — neither of which arrangements would be desirable. We have several members of the staff whose families include infant children. In view of these facts, I would strongly urge that provisions be made at once for at least two cottages of not less than six rooms each. Cottages that would serve this purpose would require an appropriation of not less than \$8,000 each.

Respectfully submitted,

JAMES V. MAY,

*Superintendent.*

NOVEMBER 30, 1929.

### VALUATION

November 30, 1929

REAL ESTATE	
Land, 236.517 acres . . . . .	\$629,508.00
Buildings . . . . .	2,640,701.74
	<hr/>
	\$3,270,209.74
PERSONAL PROPERTY	
Travel, transportation and office expenses . . . . .	\$725.00
Food . . . . .	22,858.11
Clothing and Materials . . . . .	28,653.87
Furnishings and household supplies . . . . .	258,850.19
Medical and general care . . . . .	6,800.14
Heat, light and power . . . . .	4,808.94
Farm . . . . .	9,849.25
Garage, stables and grounds . . . . .	5,465.68
Repairs . . . . .	8,794.56
	<hr/>
	\$346,805.74
SUMMARY	
Real estate . . . . .	\$3,270,209.74
Personal property . . . . .	346,805.74
	<hr/>
	\$3,617,015.48

### FINANCIAL REPORT

*To the Department of Mental Diseases:*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1929.

#### CASH ACCOUNT

##### *Receipts*

<i>Income</i>	
BOARD OF PATIENTS:	
Reimbursing . . . . .	\$101,232.68
	<hr/>
	\$101,232.68

## PERSONAL SERVICES:

Reimbursement from Board of Retirement . . . . . 280.68

## SALES:

Travel, Transportation and Office Expenses . . . . . \$167.05  
 Food . . . . . 303.05  
 Clothing and Materials . . . . . 17.41  
 Furnishings and household supplies . . . . . 131.30  
 Medical and General Care . . . . . 58.88  
 Heat, light and power . . . . . 42.65

## FARM:

Pigs and hogs . . . . . 37.07  
 Horses . . . . . 20.00  
 Garage, stable and grounds . . . . . 9.20  
 Repairs, ordinary . . . . . 46.41

Total sales . . . . . \$833.03

## MISCELLANEOUS:

Interest on bank balances . . . . . \$633.26  
 Rent . . . . . 118.67

\$751.93

Total income . . . . . \$103,098.32

## MAINTENANCE

Balance from previous year, brought forward . . . . . \$31,523.68  
 Appropriations, current year . . . . . 850,180.00

Total . . . . . \$881,703.68  
 Expenses (as analyzed below) . . . . . 840,428.89

Balance reverting to Treasury of Commonwealth . . . . . \$41,274.79

## Analysis of Expenses

PERSONAL SERVICES . . . . . \$407,650.92  
 RELIGIOUS INSTRUCTION . . . . . 2,080.00  
 TRAVEL, TRANSPORTATION AND OFFICE EXPENSES . . . . . 6,487.50  
 FOOD . . . . . 210,577.18  
 CLOTHING AND MATERIALS . . . . . 33,937.07  
 FURNISHINGS AND HOUSEHOLD SUPPLIES . . . . . 42,713.03  
 MEDICAL AND GENERAL CARE . . . . . 30,551.73  
 HEAT, LIGHT AND POWER . . . . . 53,220.14  
 FARM . . . . . 6,446.36  
 GARAGE, STABLE AND GROUNDS . . . . . 6,743.45  
 REPAIRS ORDINARY . . . . . 19,141.49  
 REPAIRS AND RENEWALS . . . . . 20,880.02

Total expenses for Maintenance . . . . . \$840,428.89

## SPECIAL APPROPRIATIONS

Balance December 1, 1928 . . . . . \$193,178.00  
 Appropriations for current year . . . . . 80,000.00

Total . . . . . \$273,178.00

Expended during the year (see statement below) . . . . . \$114,396.12  
 Reverting to Treasury of Commonwealth . . . . . 178.00

114,574.12

Balance November 30, 1929, carried to next year . . . . . \$158,603.88

OBJECT	Act or Resolve	Whole Amount	Expended During Fiscal Year	Total Expended to Date	Balance at End of Year
Food Trucks . . . . .	1927-138	\$4,000.00	—	\$3,822.00	\$178.00*
Administration building . . . . .	1928-127	180,000.00	45,968.65	45,968.65	134,031.35
Sewer and water extension . . . . .	1928-127	13,000.00	—	—	13,000.00
Purchase of land and buildings . . . . .	1929-146	40,000.00	40,000.00	40,000.00	
Renewing of steam lines . . . . .	1929-146	40,000.00	28,427.47	28,427.47	11,572.53
		\$277,000.00	\$114,396.12	\$118,218.12	\$158,781.88

Balance reverting to Treasury of the Commonwealth during year (mark item with \*) . . . \$178.00  
 Balance carried to next year . . . . . 158,603.88

Total as above . . . . . \$158,781.88

## PER CAPITA

During the year the average number of inmates has been 2,261.37  
 Total cost for maintenance, \$840,428.89  
 Equal to a weekly per capita cost of \$7.147 (52 weeks to year)  
 Receipt from sales, \$833.03  
 Equal to a weekly per capita of \$.00705  
 All other institution receipts, \$102,265.29  
 Equal to a weekly per capita of \$.869  
 Net weekly per capita \$6.27025

Respectfully submitted,

ADELINE J. LEARY,

Treasurer.

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION. PRESCRIBED BY THE  
 MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

(The following statistical tables, 1 to 19 inclusive, are for the year ended September 30, 1929, with the exception of Items 1, 2, 3, and 4 of Table 1, which relate to the year ended November 30, 1929).

TABLE 1. *General Information*

Date correct at end of hospital year, November 30, 1929

1. Date of opening as a hospital for mental diseases: December 11, 1839.									
2. Type of hospital: State, since December 1, 1908.									
3. Hospital plant:									
Value of hospital property:									
Real estate, including buildings								\$3,270,209.74	
Personal property								346,805.74	
Total								\$3,617,015.48	
Total acreage of hospital property owned, 236.51									
Total acreage under cultivation during previous year, 138									
4. Officers and employees:									
	Actually in Service at End of Year			Vacancies at End End of Year					
	M.	F.	T.	M.	F.	T.			
Superintendents	1	—	1	—	—	—			
Assistant physicians	5	5½	10½	3	½	3½			
Total physicians	6	5½	11½	3	½	3½			
Stewards	1	—	1	—	—	—			
Resident dentists	1	—	1	—	—	—			
Pharmacists	1	—	1	—	—	—			
Graduate nurses	—	12	12	—	—	—			
Other nurses and attendants	117	132	249	3	3	6			
Occupational therapists	1	10	11	—	—	—			
Social workers	—	4	4	—	—	—			
All other officers and employees	86	77	163	—1½	—	—1½			
Total officers and employees.	213	240½	453½	4½	4½	9			
5. Census of patient population at end of year:									
	Actually in Hospital			Absent from Hospital but still on books					
	M.	F.	T.	M.	F.	T.			
White:									
Insane	960	1210	2170	59	130	189			
Mental defectives	5	11	16	—	—	—			
All other cases	4	32	36	1	—	1			
Total	969	1253	2222	60	130	190			
Other Races:									
Insane	24	27	51	1	1	2			
All other cases	1	5	6	—	—	—			
Total	25	32	57	1	1	2			
Grand Total.	994	1285	2279	61	131	192			
6. Patients under treatment in occupational-therapy classes, including physical training, on date of report				Males	Females	Total			
				88	206	294			
7. Other patients employed in general work of hospital on date of report				564	434	998			
8. Average daily number of all patients actually in hospital during year.				969.17	1280.49	2249.66			

TABLE 2. *Financial Statement*

See treasurer's report for data requested under this table.

TABLE 3. *Movement of Patient Population.*

	INSANE			TEMPORARY CARE AND OBSERVATION			TOTAL ON BOOKS		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1928 . . . . .	1,040	1,395	2,435	18	8	26	1,058	1,403	2,461
Admissions during year:									
First admissions . . . . .	195	230	425	32	35	67	227	265	492
Readmissions . . . . .	27	51	78	30	27	57	57	78	135
Transfers from other hospitals for mental diseases . . . . .	7	18	25	—	—	—	7	18	25
Total received during year . . . . .	229	299	528	62	62	124	291	361	652
Total on books during year . . . . .	1,269	1,694	2,963	80	70	150	1,349	1,764	3,113
Discharged from books during year									
As recovered . . . . .	39	31	70	11	2	13	50	33	83
As improved . . . . .	30	56	86	5	7	12	35	63	98
As unimproved . . . . .	11	13	24	12	22	34	23	35	58
As without psychosis . . . . .	3	3	6	23	21	44	26	24	50
Transferred to other hospitals for mental diseases . . . . .	17	9	26	—	—	—	17	9	26
Died during year . . . . .	137	177	314	6	7	13	143	184	327
Total discharged, transferred and died during year . . . . .	237	289	526	57	59	116	294	348	642
Insane patients remaining on books of hospital at end of hospital year:									
In hospital . . . . .	972	1,278	2,250	22	7	29	994	1,285	2,279
On parole or otherwise absent . . . . .	60	131	191	1	—	1	61	131	192
Total . . . . .	1,032	1,405	2,437	23	11	34	1,055	1,416	2,471
(Correct Totals) . . . . .	1,032	1,409	2,441	23	7	30	—	—	—

NOTE: Owing to a change of criteria, this table will not balance in the Insane and Temporary Care Columns. The total insane patients actually on the books September 30, 1929 is 1,409. This includes 4 cases changed from a temporary care to an insane status at the beginning of the statistical year. The total cases on Temporary Care remaining on the books September 30, 1929, is actually 7, as four of the 8 cases on the books of the hospital at the beginning of the statistical year (September 30, 1928) were given an insane status during the present statistical year.

TABLE 4. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States . . . . .	108	105	213	36	36	29	36	30	27
Austria . . . . .	—	—	—	—	—	—	1	—	—
Belgium . . . . .	1	—	1	1	1	1	—	—	—
Canada <sup>1</sup> . . . . .	14	23	37	16	11	10	19	20	13
England . . . . .	1	3	4	4	7	3	7	6	3
Finland . . . . .	—	1	1	—	—	—	1	2	1
France . . . . .	1	—	1	1	2	1	—	—	—
Germany . . . . .	2	5	7	5	4	4	8	7	7
Hungary . . . . .	—	1	1	—	—	—	1	1	1
Ireland . . . . .	29	52	81	58	64	54	96	102	94
Italy . . . . .	20	17	37	26	23	23	19	19	19
Norway . . . . .	—	1	1	—	1	—	1	1	1
Poland . . . . .	2	3	5	3	2	2	4	4	4
Portugal . . . . .	1	—	1	1	—	—	1	1	1
Russia . . . . .	8	12	20	13	14	13	14	15	14
Scotland . . . . .	5	1	6	6	5	5	4	5	3
Sweden . . . . .	—	4	4	1	—	—	5	4	4
West Indies <sup>2</sup> . . . . .	—	1	1	1	—	—	1	—	—
Other countries . . . . .	2	1	3	4	3	3	2	1	1
Unascertained . . . . .	1	—	1	19	22	17	10	12	10
Total . . . . .	195	230	425	195	195	165	230	230	203

<sup>1</sup> Includes Newfoundland<sup>2</sup> Except Cuba and Porto Rico



TABLE 5. *Citizenship of First Admissions*

	Males	Females	Total
Citizens by birth . . . . .	108	105	213
Citizens by naturalization . . . . .	38	44	82
Aliens . . . . .	21	60	81
Citizenship unascertained . . . . .	28	21	49
Total . . . . .	195	230	425

TABLE 6. *Psychoses of First Admissions*

PSYCHOSES	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses . . . . .				2	—	2
2. Senile psychoses . . . . .				7	59	66
3. Psychoses with cerebral arteriosclerosis . . . . .				63	35	98
4. General paralysis . . . . .				20	4	24
5. Psychoses with cerebral syphilis . . . . .				—	2	2
6. Psychoses with Huntington's chorea . . . . .				—	—	—
7. Psychoses with brain tumor . . . . .				1	—	1
8. Psychoses with other brain or nervous diseases, total . . . . .				3	1	4
Cerebral embolism . . . . .	—	1	1	—	—	—
Multiple sclerosis . . . . .	1	—	1	—	—	—
Other diseases . . . . .	2	—	2	—	—	—
9. Alcoholic psychoses, total . . . . .				19	6	25
Korsakow's psychosis . . . . .	1	1	2	—	—	—
Acute hallucinosis . . . . .	7	3	10	—	—	—
Other types, acute or chronic . . . . .	11	2	13	—	—	—
10. Psychoses due to drugs and other exogenous toxins, total . . . . .				1	1	2
Other exogenous toxins . . . . .	1	1	2	—	—	—
11. Psychoses with pellagra . . . . .				—	—	—
12. Psychoses with other somatic diseases, total . . . . .				4	7	11
Exhaustion delirium . . . . .	—	2	2	—	—	—
Cardio-renal diseases . . . . .	2	5	7	—	—	—
Other diseases or conditions . . . . .	2	—	2	—	—	—
13. Manic-depressive psychoses, total . . . . .				29	52	81
Manic type . . . . .	8	11	19	—	—	—
Depressive type . . . . .	14	29	43	—	—	—
Other types . . . . .	7	12	19	—	—	—
14. Involution melancholia . . . . .				—	10	10
15. Dementia praecox (schizophrenia) . . . . .				17	13	30
16. Paranoia and paranoid conditions . . . . .				11	25	36
17. Epileptic psychoses . . . . .				2	2	4
18. Psychoneuroses and neuroses, total . . . . .				1	1	2
Hysterical type . . . . .	—	1	1	—	—	—
Psychasthenic type (anxiety and obsessive forms) . . . . .	1	—	1	—	—	—
19. Psychoses with psychopathic personality . . . . .				—	2	2
20. Psychoses with mental deficiency . . . . .				10	4	14
21. Undiagnosed psychoses . . . . .				3	5	8
22. Without psychosis, total . . . . .				2	1	3
Alcoholism without psychosis . . . . .	1	—	1	—	—	—
Psychopathic personality without psychosis . . . . .	—	1	1	—	—	—
Mental deficiency without psychosis . . . . .	1	—	1	—	—	—
Total . . . . .				195	230	425

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			Trau- matic	Senile			With cerebral arterio- sclerosis			General paralysis			With cerebral syphilis			With brain tumor		
	M.	F.	T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.								
African (blk.)	9	8	17	- - -	- 3 3	4 1 5	3 1 4	- - -	- - -	- - -	- - -								
Armenian	1	1	2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -								
Dutch, Flemish	1	-	1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -								
English	3	8	11	- - -	- 1 1	2 - 2	- - -	- - -	- - -	- - -	- - -								
Finnish	-	1	1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -								
French	2	2	4	- - -	- - -	- - -	1 - 1	2 - 2	- - -	- 1 1	- - -								
German	6	6	12	- - -	- - -	1 3 4	2 - 2	- - -	- - -	- - -	- - -								
Hebrew	14	12	26	- - -	- 3 3	1 1 2	1 1 2	4 - 4	- 1 1	- - -	- - -								
Irish	58	105	163	2 - 2	4 24 28	19 16 35	4 - 4	- 1 1	- - -	- - -	- - -								
Italian <sup>1</sup>	25	19	44	- - -	1 4 5	6 - 6	4 2 6	- - -	- - -	- - -	- - -								
Lithuanian	1	1	2	- - -	- - -	1 - 1	- - -	- - -	- - -	- - -	- - -								
Magyar	-	1	1	- - -	- - -	- 1 1	- - -	- - -	- - -	- - -	- - -								
Portuguese	-	1	1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -								
Scandinavian <sup>2</sup>	1	6	7	- - -	- 1 1	- - -	- - -	- - -	- - -	- - -	- - -								
Scotch	5	4	9	- - -	- 1 1	5 1 6	- - -	1 - 1	- - -	- - -	- - -								
Slavonic <sup>3</sup>	2	6	8	- - -	- - -	- - -	- - -	1 - 1	- - -	- - -	- - -								
Syrian	1	-	1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -								
Other specific races	-	1	1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -								
Mixed	60	46	106	- - -	2 20 22	21 12 33	4 - 4	- - -	1 - 1	- - -	- - -								
Unascertained	6	2	8	- - -	- 2 2	3 - 3	- - -	- - -	- - -	- - -	- - -								
Total	195	230	425	2 - 2	7 59 66	63 35 98	20 4 24	- 2 2	1 - 1	- - -	- - -								

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued.*

RACE	With other brain or nervous diseases			Alcoholic			Due to drugs and other exogenous toxins			With other somatic diseases			Manic-depressive			Involution melancholia			Dementia praecox		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	1
Armenian	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	1
Dutch, Flemish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	1	1	-	-	-
Finnish	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
French	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German	-	-	-	-	-	-	-	-	-	1	1	-	1	-	1	-	-	-	-	-	-
Hebrew	-	-	-	-	-	-	-	-	-	1	1	-	6	4	10	-	-	-	3	-	3
Irish	2	1	3	11	5	16	1	-	1	2	3	5	2	24	26	-	4	4	4	10	14
Italian <sup>1</sup>	-	-	-	2	-	2	-	-	-	5	8	13	5	8	13	-	-	-	2	-	2
Lithuanian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magyar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	-	-	-	-	-	-	-	-	-	-	-	-	3	3	-	-	-	-	1	-	1
Scotch	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	1	-	-	-
Slavonic <sup>3</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	3	3	-	-	-
Syrian	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Other specific races	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Mixed	1	-	1	5	-	5	-	-	-	1	2	3	12	8	20	-	1	1	6	2	8
Unascertained	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Total	3	1	4	19	6	25	1	1	2	4	7	11	29	52	81	-	10	10	17	13	30

<sup>1</sup> Include "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, and Slovenian.



TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded.*

RACE	Paranoia and paranoid conditions			Epileptic psychoses			Psycho-neuroses and neuroses			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Armenian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch, Flemish	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
English	—	2	2	—	—	—	—	—	—	—	—	—	2	2	—	1	1	—	—	—	—
Finnish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—
German	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Hebrew	1	1	2	—	—	—	—	—	—	—	—	—	2	—	2	—	1	1	—	—	—
Irish	3	12	15	—	2	2	—	—	—	—	2	2	4	—	4	—	—	—	—	1	1
Italian 1	3	3	6	—	—	—	—	—	—	—	—	—	1	1	—	2	1	3	—	—	—
Lithuanian	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Magyar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian 2	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	1	1	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic 3	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	1	1	2	1	—	1	—	—	—	—	—	—	4	—	4	—	—	—	1	—	1
Unascertained	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Total	11	25	36	2	2	4	1	1	2	—	2	2	10	4	14	3	5	8	2	1	3

1 Includes "North" and "South."

2 Norwegians, Danes and Swedes.

3 Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years			25-29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile	7	59	66	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	63	35	98	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis	20	4	24	—	—	—	—	—	—	1	—	1	—	—	—
5. With cerebral syphilis	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1
8. With other brain or nervous diseases	3	1	4	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic	19	6	25	—	—	—	—	—	—	—	—	—	2	—	2
10. Due to drugs and other exogenous toxins	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	4	7	11	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive	29	52	81	—	—	—	3	2	5	7	5	12	2	9	11
14. Involution melancholia	—	10	10	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox	17	13	30	—	—	—	2	—	2	6	2	8	5	4	9
16. Paranoia and paranoid conditions	11	25	36	—	—	—	—	—	—	—	—	—	1	—	1
17. Epileptic psychoses	2	2	4	—	—	—	1	1	—	—	—	—	1	—	1
18. Psychoneuroses and neuroses	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	—	2	2	—	—	—	—	—	—	1	1	—	—	—	—
20. With mental deficiency	10	4	14	1	—	1	1	—	1	2	—	2	1	—	1
21. Undiagnosed psychoses	3	5	8	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis	2	1	3	—	—	—	—	—	—	1	—	1	—	—	—
Total	195	230	425	1	—	1	6	3	9	17	8	25	13	13	26

TABLE 8. Age of First Admissions Classified with Reference to Principal Psychoses — Continued.

PSYCHOSIS	30-34 years			35-39 years			40-44 years			45-49 years			50-54 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	5	7
4. General paralysis . . . . .	1	—	1	3	2	5	2	—	2	1	—	1	6	1	7
5. With cerebral syphilis . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	1	—	1	—	—	—	1	1	2	—	—	—
9. Alcoholic . . . . .	2	—	2	2	—	2	2	2	4	3	1	4	3	2	5
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	1	—	1	—	1	1
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	—	—	—	—	—	—	—	—	3	3	—	1	—	1
13. Manic-depressive . . . . .	4	6	10	3	10	13	3	3	6	2	6	8	1	2	3
14. Involution melancholia . . . . .	—	—	—	—	—	—	—	—	—	2	2	—	6	4	4
15. Dementia praecox . . . . .	2	—	2	—	5	5	1	2	3	1	—	1	—	—	—
16. Paranoia and paranoid conditions . . . . .	1	1	2	—	3	3	3	6	9	2	6	8	1	2	3
17. Epileptic psychoses . . . . .	—	1	1	1	—	1	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	1	—	1	—	—	—	—	1	1
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
20. With mental deficiency . . . . .	1	—	1	2	1	3	1	2	3	—	—	—	1	—	1
21. Undiagnosed psychoses . . . . .	1	2	3	—	—	—	1	2	3	1	—	1	—	—	—
22. Without psychosis . . . . .	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Total . . . . .	12	11	23	12	22	34	14	18	32	12	19	31	15	18	33

TABLE 8. Age of First Admissions Classified with Reference to Principal Psychoses — Concluded.

PSYCHOSES	55-59 years			60-64 years			65-69 years			70 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	—	—	—	—	—	—	1	—	1
2. Senile . . . . .	—	1	1	1	6	7	—	10	10	6	42	48
3. With cerebral arteriosclerosis . . . . .	1	3	4	12	1	13	12	13	25	36	13	49
4. General paralysis . . . . .	4	—	4	2	1	3	—	—	—	—	—	—
5. With cerebral syphilis . . . . .	—	1	1	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	1	—	1	—	—	—	—	—	—
9. Alcoholic . . . . .	4	1	5	—	—	—	1	—	1	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	1	2	—	—	—	1	3	4	1	—	1
13. Manic-depressive . . . . .	1	4	5	1	3	4	2	2	4	—	—	—
14. Involution melancholia . . . . .	—	4	4	—	—	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	3	2	5	—	1	1	—	3	3	—	1	1
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—	—	1	1
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	1	1	—	—	—	—
22. Without psychosis . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
Total . . . . .	16	17	33	17	12	29	16	32	48	44	57	101

TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses.

PSYCHOSES	Total		Illiterate		Reads and writes <sup>1</sup>		Common school		High school		College		Unascertained	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Traumatic . . . . .	2	2	-	-	-	-	2	-	-	-	-	-	-	-
2. Senile . . . . .	7	59	11	11	2	12	23	2	-	-	-	-	3	12
3. With cerebral arteriosclerosis . . . . .	63	35	3	3	12	14	21	25	2	1	2	2	19	19
4. General paralysis . . . . .	20	4	2	2	12	15	12	25	6	4	-	-	3	3
5. With cerebral syphilis . . . . .	-	2	-	-	-	-	1	1	1	1	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	1	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	3	1	-	-	-	-	1	1	-	-	-	-	-	-
9. Alcoholic . . . . .	19	6	-	-	1	2	16	4	-	-	-	-	1	1
10. Due to drugs and other exogenous toxins . . . . .	1	1	-	-	1	1	1	1	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	4	7	-	-	-	-	2	6	-	-	-	-	-	-
13. Manic-depressive . . . . .	29	81	2	1	2	1	13	40	1	1	2	1	1	1
14. Involution melancholia . . . . .	-	10	-	-	-	-	-	9	-	-	-	-	3	3
15. Dementia praecox . . . . .	17	13	-	-	-	-	5	5	11	8	-	-	1	1
16. Paranoia and paranoid conditions . . . . .	11	25	-	-	1	1	2	6	21	27	-	-	3	1
17. Epileptic psychoses . . . . .	2	4	-	-	-	-	2	1	3	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	1	2	-	-	-	-	1	1	2	1	-	-	-	-
19. With psychopathic personality . . . . .	-	2	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	10	4	1	2	1	1	9	1	1	1	-	-	-	-
21. Undiagnosed psychoses . . . . .	3	5	-	-	1	1	2	4	-	-	-	-	-	-
22. Without psychosis . . . . .	2	1	1	1	1	1	1	1	-	-	-	-	-	-
Total . . . . .	195	230	9	23	22	21	95	146	31	26	4	1	34	47

<sup>1</sup> Includes those who did not complete fourth grade in school.

TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Urban		
	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	2	—	2
2. Senile . . . . .	7	59	66	7	59	66
3. With cerebral arteriosclerosis . . . . .	63	35	98	63	35	98
4. General paralysis . . . . .	20	4	24	20	4	24
5. With cerebral syphilis . . . . .	—	2	2	—	2	2
6. With Huntington's chorea . . . . .	—	—	—	—	—	—
7. With brain tumor . . . . .	1	—	1	1	—	1
8. With other brain or nervous diseases . . . . .	3	1	4	3	1	4
9. Alcoholic . . . . .	19	6	25	19	6	25
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	1	1	2
11. With pellagra . . . . .	—	—	—	—	—	—
12. With other somatic diseases . . . . .	4	7	11	4	7	11
13. Manic-depressive . . . . .	29	52	81	29	52	81
14. Involution melancholia . . . . .	—	10	10	—	10	10
15. Dementia praecox . . . . .	17	13	30	17	13	30
16. Paranoia and paranoid conditions . . . . .	11	25	36	11	25	36
17. Epileptic psychoses . . . . .	2	2	4	2	2	4
18. Psychoneuroses and neuroses . . . . .	1	1	2	1	1	2
19. With psychopathic personality . . . . .	—	2	2	—	2	2
20. With mental deficiency . . . . .	10	4	14	10	4	14
21. Undiagnosed psychoses . . . . .	3	5	8	3	5	8
22. Without psychosis . . . . .	2	1	3	2	1	3
Total . . . . .	195	230	425	195	230	425

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Dependent			Marginal			Com- fortable			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	—	—	—	2	—	2	—	—	—	—	—	—
2. Senile . . . . .	7	59	66	2	6	8	4	49	53	—	—	—	1	4	5
3. With cerebral arteriosclerosis . . . . .	63	35	98	5	2	7	48	31	79	2	1	3	8	1	9
4. General paralysis . . . . .	20	4	24	2	1	3	16	3	19	1	—	1	1	—	1
5. With cerebral syphilis . . . . .	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	3	1	4	2	—	2	1	1	2	—	—	—	—	—	—
9. Alcoholic . . . . .	19	6	25	—	4	4	19	2	21	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	—	—	—	1	1	2	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	4	7	11	—	—	—	4	7	11	—	—	—	—	—	—
13. Manic-depressive . . . . .	29	52	81	1	9	10	26	43	69	1	—	1	1	—	1
14. Involution melancholia . . . . .	—	10	10	—	3	3	—	7	7	—	—	—	—	—	—
15. Dementia praecox . . . . .	17	13	30	—	5	5	17	8	25	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	11	25	36	1	5	6	10	19	29	—	1	1	—	—	—
17. Epileptic psychoses . . . . .	2	2	4	—	2	2	2	—	2	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	1	2	—	1	1	1	—	1	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—
20. With mental deficiency . . . . .	10	4	14	2	3	5	8	1	9	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	3	5	8	—	1	1	3	4	7	—	—	—	—	—	—
22. Without psychosis . . . . .	2	1	3	1	1	2	1	—	1	—	—	—	—	—	—
Total . . . . .	195	230	425	16	43	59	164	180	344	4	2	6	11	5	16

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	—	—	—	2	—	2	—	—	—	—	—	—
2. Senile . . . . .	7	59	66	1	37	38	1	10	11	1	3	4	4	9	13
3. With cerebral arterio-sclerosis . . . . .	63	35	98	21	24	45	17	9	26	10	1	11	15	1	16
4. General paralysis . . . . .	20	4	24	3	3	6	6	1	7	9	—	9	2	—	2
5. With cerebral syphilis . . . . .	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
8. With other brain or nervous diseases . . . . .	3	1	4	2	1	3	—	—	—	—	—	—	1	—	1
9. Alcoholic . . . . .	19	6	25	—	—	—	—	—	—	19	6	25	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	—	—	—	1	1	2	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	4	7	11	1	5	6	1	2	3	1	—	1	1	—	1
13. Manic-depressive . . . . .	29	52	81	6	30	36	16	17	33	3	1	4	4	4	8
14. Involution melancholia . . . . .	—	10	10	—	3	3	—	6	6	—	—	—	—	1	1
15. Dementia præcox . . . . .	17	13	30	7	5	12	8	8	16	1	—	1	1	—	1
16. Paranoia and paranoid conditions . . . . .	11	25	36	4	12	16	4	12	16	2	—	2	1	1	2
17. Epileptic psychoses . . . . .	2	2	4	1	1	2	1	1	2	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	1	2	—	—	—	1	1	2	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—
20. With mental deficiency . . . . .	10	4	14	5	—	5	4	4	8	1	—	1	—	—	—
21. Undiagnosed psychoses . . . . .	3	5	8	—	1	1	2	2	4	1	2	3	—	—	—
22. Without psychosis . . . . .	2	1	3	1	—	1	—	1	1	1	—	1	—	—	—
Total . . . . .	195	230	425	52	124	176	64	77	141	50	13	63	29	16	45

TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses.*

	Total		Single		Married		Widowed		Separated		Divorced		Unascertained	
	M.	F.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	2	—	2	—	2	1	—	1	—	—	—	—	—	—
2. Scuffle	7	59	66	2	17	2	17	19	1	—	—	—	—	—
3. With cerebral arteriosclerosis	63	35	98	12	9	31	14	45	1	—	—	—	—	—
4. General paralysis	20	4	24	6	—	13	4	17	1	—	—	2	—	2
5. With cerebral syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	1	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	3	1	4	1	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	19	6	25	8	2	7	2	9	—	—	—	—	—	—
9. Alcoholic	1	1	2	—	—	1	1	2	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra	4	7	11	—	—	3	1	4	—	—	—	—	—	—
12. With other somatic diseases	29	52	81	11	21	32	17	27	44	—	—	—	—	—
13. Manic-depressive	—	10	10	—	—	3	—	3	1	—	—	—	—	—
14. Involution melancholia	17	13	30	17	12	29	5	11	—	—	—	1	1	—
15. Dementia praecox	11	25	36	4	7	11	5	16	—	—	—	—	—	—
16. Paranoia and paranoid conditions	2	2	4	2	1	3	—	—	—	—	—	—	—	—
17. Epileptic psychoses	1	1	2	—	—	1	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	1	2	3	—	—	1	—	—	—	—	—	—	—	—
19. With psychopathic personality	10	4	14	9	3	12	—	—	—	—	—	—	—	—
20. With mental deficiency	3	5	8	1	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses	2	1	3	1	—	—	—	—	—	—	—	—	—	—
22. Without psychosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	195	230	425	76	82	158	83	80	163	29	63	92	2	2

TABLE 14. *Psychoses of Readmissions.*

PSYCHOSES	Males	Females	Total
1. Traumatic . . . . .	—	—	—
2. Senile psychoses . . . . .	1	4	5
3. Psychoses with cerebral arteriosclerosis . . . . .	2	1	3
4. General paralysis . . . . .	1	—	1
5. Psychoses with cerebral syphilis . . . . .	—	—	—
6. Psychoses with Huntington's chorea . . . . .	—	—	—
7. Psychoses with brain tumor . . . . .	1	—	1
8. Psychoses with other brain or nervous diseases . . . . .	1	—	1
9. Alcoholic psychoses . . . . .	1	2	3
10. Psychoses due to drugs and other exogenous toxins . . . . .	—	—	—
11. Psychoses with pellagra . . . . .	—	—	—
12. Psychoses with other somatic diseases . . . . .	1	—	1
13. Manic-depressive psychoses . . . . .	8	25	33
14. Involution melancholia . . . . .	—	—	—
15. Dementia praecox . . . . .	7	8	15
16. Paranoia and paranoid conditions . . . . .	2	4	6
17. Epileptic psychoses . . . . .	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—
19. Psychoses with psychopathic personality . . . . .	—	—	—
20. Psychoses with mental deficiency . . . . .	—	5	5
21. Undiagnosed psychoses . . . . .	—	—	—
22. Without psychosis . . . . .	2	2	4
Total . . . . .	27	51	78

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge.*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	1	11	12	—	—	—	1	9	10	—	2	2
3. With cerebral arteriosclerosis . . . . .	5	6	11	1	1	2	1	5	6	3	—	3
4. General paralysis . . . . .	9	3	12	—	—	—	5	3	8	4	—	4
5. With cerebral syphilis . . . . .	1	1	2	—	—	—	1	1	2	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	3	—	3	—	—	—	2	—	2	1	—	1
9. Alcoholic . . . . .	12	4	16	9	1	10	3	3	6	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	1	—	1	—	—	—	1	—	1	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	3	3	—	1	1	—	1	1	—	1	1
13. Manic-depressive . . . . .	27	42	69	23	25	48	4	17	21	—	—	—
14. Involution melancholia . . . . .	1	3	4	—	1	1	1	1	2	—	1	1
15. Dementia praecox . . . . .	8	10	18	—	—	—	6	4	10	2	6	8
16. Paranoia and paranoid conditions . . . . .	3	10	13	—	—	—	3	7	10	—	3	3
17. Epileptic psychoses . . . . .	1	2	3	—	—	—	1	2	3	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	1	2	1	—	1	—	1	1	—	—	—
19. With psychopathic personality . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
20. With mental deficiency . . . . .	7	3	10	5	2	7	1	1	2	1	—	1
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	3	3	6	—	—	—	—	—	—	—	—	—
Total . . . . .	83	103	186	39	31	70	30	56	86	11	13	24





TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses — Concluded.

CAUSES OF DEATH	Dementia praecox		Paranoia and paranoid conditions		Epileptic psychoses		With psychopathic personality		With mental deficiency		All other psychoses	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious Diseases</i>												
Influenza . . . . .	—	1	1	—	—	—	—	—	—	—	—	—
Erysipelas . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis of the respiratory system . . . . .	5	2	7	—	1	1	—	—	—	1	1	2
Tuberculosis of other organs . . . . .	—	—	—	—	—	—	—	—	—	—	1	1
Purulent infection, septicaemia . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
<i>General Diseases not Included in Class I</i>												
Cancer and other malignant tumors . . . . .	—	1	1	—	—	—	—	—	—	—	—	—
Other general diseases . . . . .	—	1	1	—	—	—	—	—	—	—	—	—
<i>Diseases of the Nervous System</i>												
Cerebral hemorrhage, apoplexy . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
General paralysis of the insane . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of the nervous system . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Circulatory System</i>												
Pericarditis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Endocarditis and myocarditis . . . . .	1	—	1	—	5	5	—	—	—	—	2	4
Arteriosclerosis . . . . .	1	—	1	—	—	—	—	—	1	—	—	6
Other diseases of the circulatory system . . . . .	—	—	—	—	1	1	—	—	—	—	—	—
<i>Diseases of the Respiratory System</i>												
Bronchopneumonia . . . . .	2	8	10	—	2	2	1	1	—	1	5	6
Lobar pneumonia . . . . .	—	—	—	—	—	—	—	1	—	—	—	—
<i>Diseases of the Digestive System</i>												
Diarrhea and enteritis . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
Hernia and intestinal obstruction . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Cirrhosis of liver . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
<i>Non-Veneral Diseases of Genito-Urinary System and Anæmia</i>												
Other diseases of kidneys and anæmia . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
<i>External Causes</i>												
Suicide . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Accidental poisoning . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Other external causes . . . . .	—	—	—	—	—	—	—	—	—	—	1	—
Total . . . . .	10	13	23	—	9	9	1	—	1	1	9	16

1 Includes group 22, "without psychosis."

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses.

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years			25-29 years			30-34 years			35-39 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	14	72	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	60	40	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	19	4	23	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	3	2	5
4. General paralysis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	3	1	4	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	1	-	1
7. With brain tumor . . . . .	11	5	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	3	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	8	13	21	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-
13. Manic-depressive . . . . .	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14. Involution melancholia . . . . .	10	13	23	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2	2	4
15. Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	137	177	314	-	-	-	-	-	-	-	-	-	3	2	5	2	1	3	6	4	10

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses. — Concluded.

PSYCHOSES	40-44 years			45-49 years			50-54 years			55-59 years			60-64 years			65-69 years			70 years and over			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	2	2	-	1	-	-	-	-	-	-	-	
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	6	11	-	3	14	17	-	-	-	10	56	66
3. With cerebral arteriosclerosis . . . . .	-	-	-	1	1	-	-	3	3	5	6	11	-	3	7	-	-	-	-	36	25	61
4. General paralysis . . . . .	3	-	-	4	1	5	2	-	2	4	1	5	-	2	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	1	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	1	1	2	2	1	3	1	-	1	2	1	3	1	1	2	1	1	2	1	-	-	1
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	1	1	2	1	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	-	-	-	-	-	-	-	-	1	1	2	1	1	2	2	3	2	5	2	2	4
13. Manic-depressive . . . . .	-	-	-	1	1	1	1	1	1	1	2	2	1	1	1	-	1	-	1	-	1	-
14. Involution melancholia . . . . .	-	2	2	1	1	2	1	1	2	1	1	1	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	2	-	2	-	3	3	1	3	4	-	2	2	2	2	2	2	2	2	1	3	1	4
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	3	3	-	1	1	-	2	2	-	3	3	3
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	1	1
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	7	3	10	9	7	16	7	9	16	15	20	35	11	11	22	24	32	56	53	88	141	

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses.*

PSYCHOSES		Total			Less than 1 month		1-3 months		4-7 months		8-12 months		1-2 years		3-4 years							
		M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.						
1. Traumatic	14	72	86	1	7	8	2	12	14	1	10	11	1	5	6	5	16	21	1	3	9	12
2. Senile	60	49	109	15	8	23	13	10	23	2	4	6	8	4	12	16	10	26	2	6	8	
3. With cerebral arteriosclerosis	19	4	23				5	1	6	3		3	1	1	2	3	2	5	2	2	6	
4. General paralysis	1																		1		1	
5. With cerebral syphilis																						
6. With Huntington's chorea	2																					
7. With brain tumor	3	1	4				1		1													
8. With other brain or nervous diseases	11	5	16				3	1	4				1		1		1		1		1	
9. Alcoholic																						
10. Due to drugs and other exogenous toxins																						
11. With pellagra																						
12. With other somatic diseases	3	5	8	1	2	3	1	2	3													
13. Manic-depressive	8	13	21	1	1	1	1	4	5	1	1	1	1	1	1	1	3	4	1	1	1	
14. Involution melancholia	2	4	6																			
15. Dementia praecox	10	13	23																			
16. Paranoia and paranoid conditions		9	9																			
17. Epileptic psychoses	1		1																			
18. Psychoneuroses and neuroses																						
19. With psychopathic personality	2		2																			
20. With mental deficiency	1	1	2																1			
21. Undiagnosed psychoses																						
22. Without psychosis		1	1																			
Total	137	177	314	17	20	37	27	32	59	6	15	21	12	10	22	30	36	66	12	18	30	

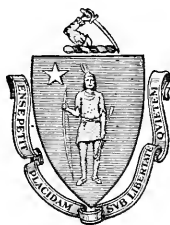


TABLE 19. *Family Care Department.*

	Males	Females	Totals
Remaining in Family Care September 30, 1928 . . . . .	—	7	7
On visit from Family Care September 30, 1928 . . . . .	—	2	2
Admitted during the year . . . . .	—	2	2
Whole number of cases within the year . . . . .	—	11	11
Dismissed within the year . . . . .	—	4	4
Returned to institution . . . . .	—	2	2
Discharged . . . . .	—	—	—
On visit . . . . .	—	—	—
Returned from visit . . . . .	—	—	—
Discharged from visit from Family Care . . . . .	—	2	2
Remaining in Family Care September 30, 1929 . . . . .	—	7	7
On visit from Family Care September 30, 1929 . . . . .	—	—	—
Number of different persons within the year . . . . .	—	11	11
Number of different persons admitted . . . . .	—	2	2
Number of different persons discharged . . . . .	—	4	4
Average daily number in Family Care during the year, including those on visit from Family Care . . . . .	—	8.56	8.56
Support by the State . . . . .	—	8.56	8.56
Private . . . . .	—	—	—
Self-supporting . . . . .	—	—	—
Average daily number on visit from Family Care . . . . .	—	1.73	1.73

# The Commonwealth of Massachusetts

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## ANNUAL REPORT

OF THE

## TRUSTEES

OF THE

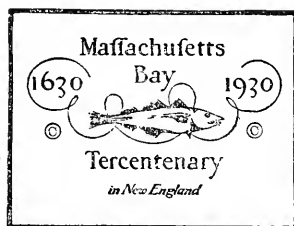
## BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1930

DEPARTMENT OF MENTAL DISEASES

THE NINETIETH ANNUAL REPORT OF THE HOSPITAL FOUNDED  
IN 1839 BY THE CITY OF BOSTON



PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION ON ADMINISTRATION AND FINANCE  
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DEPARTMENT OF MENTAL DISEASES  
GARDNER STATE COLONY  
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# BOSTON STATE HOSPITAL

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## TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council:*

The trustees of the Boston State Hospital have the honor to submit herewith their twenty-second annual report covering the year ended November 30, 1930.

The trustees have held their usual meetings and have through their committees maintained their supervision of the condition of the hospital, which at all times has seemed satisfactory. They desire to express their appreciation of the faithful service of the officers of the hospital and believe that everything is being done for the comfort and care of the patients that is possible within the means at our disposal.

The appended reports of the Superintendent and Treasurer state in detail the operations of the year.



## PATIENTS UNDER THE CARE OF THE TRUSTEES

The number of patients in the hospital has varied from 2,225 to 2,300, the average daily population being 2,261.16. In addition there were on the average 8.31 patients in private care and 197.03 on visit or escape.

## COST OF MAINTENANCE

The amount allowed for maintenance for this year by the General Court was \$884,269.69, including \$27,689.69 brought over from the previous year.

Due to the stress of general unemployment, it has been possible to maintain the personal service with a smaller number of vacancies than has been the case for many years. It is still difficult to obtain a sufficient number of satisfactory assistant physicians and at no time has the staff been filled.

## ESTIMATES FOR MAINTENANCE

The following are the estimates of the amount needed for maintenance for the ensuing year on the established salary scales and the established per capita allowance for a population of 2,100:

Personal service . . . . .	\$480,394.60
Religious instruction . . . . .	2,080.00
Travel, transportation, etc. . . . .	8,000.00
Food . . . . .	198,000.00
Clothing and materials . . . . .	29,000.00
Heat, light and power. . . . .	65,000.00
Medical and general care . . . . .	39,500.00
Furnishings and household supplies . . . . .	42,000.00
Farm . . . . .	8,000.00
Garage, stable and grounds . . . . .	9,332.00
Repairs, ordinary. . . . .	19,500.00
Repairs and renewals . . . . .	15,000.00
Total . . . . .	<hr/> \$915,806.60

## NEW CONSTRUCTION

The Administration Building, provided for by the General Court in 1928, has been completed and now furnishes adequate facilities for the offices and quarters of the resident administrative officers. The appropriation of \$40,000 for the renewal and extension of certain steam lines made in 1929 was supplemented by an additional appropriation of \$27,400 this year, and the work has been completed.

An appropriation of \$158,000 was also made this year for the construction of buildings to accommodate 80 employees, an office for the East Group and a new greenhouse. Two buildings, one to accommodate 60 female employees and the proposed office, and a smaller building for 20 male employees, are nearly completed. When occupied, a portion of the old administration building will be moved and will be occupied as a residence by staff officers. The remainder of the building will be taken down. The old barn has already been torn down and with the removal of the Austin house two of our serious fire menaces will have been eliminated.

The most pressing need of the hospital is a reception building which would enable us to give the most effective treatment to those patients whose restoration to mental health is most promising. The detailed use of such a building is described by the Superintendent in his report. Some less expensive buildings and improvements are also needed and might well be included in an extended building programme. Among these is the enclosure of the hospital grounds by a suitable fence. It is not only needed to prevent trespass, but without it the hospital can never have the dignity or seclusion which so important an institution of the Commonwealth merits.

HENRY LEFAVOUR  
KATHERINE G. DEVINE  
CHARLES B. FROTHINGHAM

EDNA W. DREYFUS  
J. WALDO FOND  
JOHN A. KIGGEN

ALBERT EVANS.

Trustees.

## SUPERINTENDENT'S REPORT

### *To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1930, and the fiscal year ending November 30, 1930. Founded by the City of Boston in 1839, this marks the completion of its ninety-first year as a hospital for mental diseases, and the twenty-second year of its history as a State institution.

### MOVEMENT OF POPULATION

The census of the hospital on September 30, 1929, was as follows: in the wards, men, 994, women, 1,285, total, 2,279; at home on visit, men, 55, women, 123, total, 178; boarding out, men, none, women, 7; and out on escape, men, 6, women, 1, total, 7; making a total of 2,471, 1,055 men and 1,416 women, in the custody of the hospital.

Three hundred and seventeen men and 339 women, a total of 656, were received during the year. This included the following: first admissions as insane, men, 184<sup>1</sup>, women, 201<sup>2</sup>, total, 385; readmissions as insane, men, 46, women, 50<sup>3</sup>, total, 96; first admissions, temporary care, men, 39, women, 40, total, 79; readmissions, temporary care, men, 34, women, 32, total, 66; and transferred from other institutions, men, 14, women, 16, total, 30. Three hundred and fourteen, including 127 men and 187 women, were discharged during the year. Sixty-three men and 43 women, a total of 106, were transferred to other institutions. One hundred and thirteen men and 123 women, a total of 236, died during the year.

The census on September 30, 1930, was as follows: in the wards, men, 981, women, 1,279, total, 2,260; at home on visit, men, 83, women, 114, total, 197; boarding out, men, none, women, 9; and out on escape, men, 5, women, none; making a total of 2,471, 1,069 men and 1,402 women, in the custody of the hospital.

The total number of cases treated during the year was 3,127, 1,372 men and 1,755 women.

The average daily number of patients for the statistical year was as follows: men, 1,064.55, women, 1,400.67, total, 2,465.22. The average daily number in the wards was: men, 992.60, women, 1,270.28, total, 2,262.88, or 91.79 per cent of the whole number. The average daily number at home on visit was: men, 67.70, women 121.92, total, 189.62, or 7.69 per cent. The average daily number boarding out was: men, none, women, 7.61, or .31 per cent. The average daily number out on escape was: men, 4.25, women, .86, total, 5.11, or .21 per cent. The average daily number of committed cases was 971.85 men, 1,260.03 women, total, 2,231.88, or 98.63 per cent of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was: men, none, women, .016, total, .016, or .0007 per cent. The average daily number of cases under complaint or indictment was: men, 15.56, women, 4.50, total, 20.06, or .88 per cent. The average daily number of temporary care cases, including the emergency cases and those under complaint or indictment, was: men, 20.75, women, 10.25, total, 31.00 or 1.37 per cent. The average daily number of epileptics was: 16.92 men, 17.61 women, total, 34.53, or 1.52 per cent. The average daily number of tuberculous patients was: men, 19.14, women, 37.87, total, 57.01, or 2.52 per cent. The average daily number of reimbursing cases was: men, 97.89, women, 204.53, total, 302.42, or 13.37 per cent. The average daily number of cases supported by the State was: men, 894.71, women, 1,065.75, total, 1,960.46, or 86.63 per cent. The average daily number of ex-service cases was: men, 31.45, women, 1.62, total, 33.07, or 1.62 per cent.

The recovery rate, based on the number of first admissions (464), was 19.61 per cent; based on the total number cared for during the year (3,127), 2.91 per cent; based on the average daily number in the wards (2,262.88), 4.02 per cent; and based on the total number of admissions for the year (656), 13.87 per cent.

The death rate, based on the total number cared for during the year, was 7.54 per cent; and based on the average daily number in the wards, 10.43 per cent.

(1) Including two Sec. 79 and one Sec. 77 committed after the end of the statistical year.

(2) Including three Sec. 79 and two Sec. 77 committed after the end of the statistical year.

(3) Including one Sec. 77 committed after the end of the statistical year.

The death rate of the hospital is unusually large when compared with that of other hospitals of a similar character, as about 35 per cent of the population is of the infirm type, and nearly ten per cent represents actual bed cases. This is due to the fact that the acutely ill, the senile, and the infirm cases from the city cannot be transported readily to distant places, and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate.

Of the first admissions as insane, 169, or 43.90 per cent, were foreign born, and 314, or 81.56 per cent, were of foreign parentage on one or both sides. Sixty-two, or 16.01 per cent, were aliens. Citizenship was unascertained in 21, or 5.45 per cent. Of the 4,154 consecutive first admissions as insane, for the ten-year period beginning October 1, 1920, 2,029, or 48.84 per cent, were foreign born; 3,355, or 80.76 per cent, were of foreign parentage on one or both sides, 782, or 18.82 per cent, were aliens, and citizenship was unascertained in 427, or 10.28 per cent.

The average age on admission was 52.41; 152, or 39.48 per cent, were sixty years of age or over, and 80, or 20.78 per cent, were seventy years of age or over. For the ten-year period beginning October 1, 1920, the average age on admission was 51.82; 1,600 or 38.32 per cent, were sixty years of age or over; and 857, or 20.63 per cent, were seventy years of age or over.

The first admissions for the year, classified according to legal status, under the General Laws, were as follows:

	Males	Females	Totals
Committed cases (Sec. 51, Ch. 123.) . . . . .	113	115	228
Cases committed from observation (Ch. 19, Acts of 1924) . . . . .	—	1	1
Voluntary admissions (Sec. 86, Ch. 123) . . . . .	—	—	—
Emergency commitments (Sec. 78, Ch. 123) . . . . .	—	—	—
Pending examination and hearing (Sec. 55, Ch. 123) . . . . .	—	—	—
Acquitted of murder by reason of insanity (Sec. 101, Ch. 123) . . . . .	—	—	—
Temporary care cases (Sec. 79, Ch. 123) . . . . .	58	74	132
Observation cases (Sec. 77, Ch. 123) . . . . .	13	11	24
Total . . . . .	184	201	385

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (Sec. 51, Ch. 123, G. L.), 59.22 per cent; cases committed from observation (Ch. 19, Acts of 1924), .26 per cent; temporary care cases (Sec. 79, Ch. 123, G. L.), 34.29 per cent; and observation cases (Sec. 77, Ch. 123, G. L.), 6.24 per cent. For the ten-year period beginning October 1, 1920, the distribution of the 4,154 first admissions, classified according to legal status, was as follows: committed cases (Sec. 51, Ch. 123, G. L.), 2,982, or 71.78 per cent; emergency cases (Sec. 78, Ch. 123, G. L.), 52, or 1.25 per cent; temporary care cases (Sec. 79, Ch. 123, G. L.), 887, or 21.35 per cent; observation cases (Sec. 77, Ch. 123, G. L.), 207, or 4.98 per cent; and cases held under complaint or indictment (Sec. 100, Ch. 123, G. L.), 19, or .46 per cent. During the above period there was only one case pending examination and hearing (Sec. 55, Ch. 123, G. L.), one Boston Police case (Ch. 307, Acts of 1910), and one case acquitted of murder by reason of insanity (Sec. 101, Ch. 123, G. L.). No voluntary cases (Sec. 86, Ch. 123, G. L.) have been received since 1921, during which year there were three. The number of cases held under complaint or indictment (Sec. 100, Ch. 123, G. L.) is misleading, inasmuch as these cases are now included with temporary care cases and not classified as commitments.

i Of the 385 first admissions for the year, the cause was unascertained or no cause given in 104 cases, or 27.01 per cent. In the 281 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 39, or 13.88 per cent; arteriosclerosis, 108, or 38.42 per cent; syphilis, 25, or 8.89 per cent; alcoholism, 23, or 8.18 per cent; involutional changes, 15, or 5.34 per cent; and traumatism, 2, or .71 per cent. There was a family history of mental diseases in 83, or 21.56 per cent, mental defects in 6, or 1.56 per cent, and nervous diseases in 9, or 2.34 per cent, of the first admissions. Of the 4,154 first admissions to the hospital since October 1, 1920, the cause was unascertained or no cause given

in 1,229, or 29.59 per cent, of the cases. In the 2,925 cases where a definite cause was assigned, the etiologic factors are classified as follows: senility, 610, or 20.86 per cent; arteriosclerosis, 714, or 24.41 per cent; syphilis, 366, or 12.51 per cent; alcoholism, 344, or 11.78 per cent; involutional changes, 196, or 6.72 per cent; and traumatism, 47, or 1.61 per cent. There was a family history of mental diseases in 677, or 16.29 per cent, mental defects in 66, or 1.59 per cent, and nervous diseases in 158, or 3.80 per cent, of the first admissions during this period.

The forms of mental disease shown by the 385 first admissions for the year, briefly summarized, were as follows: senile psychoses, 46, or 11.95 per cent; psychoses with cerebral arteriosclerosis, 102, or 26.50 per cent; general paralysis, 26, or 6.75 per cent; psychoses with other brain or nervous diseases, 9, or 2.34 per cent; alcoholic psychoses, 18, or 4.67 per cent; psychoses with other somatic diseases, 11, or 2.86 per cent; manic-depressive psychoses, 61, or 15.84 per cent; involution melancholia, 7, or 1.82 per cent; dementia praecox, 17, or 4.41 per cent; paranoia or paranoid conditions, 24, or 6.23 per cent; psychoneuroses and neuroses, 7, or 1.82 per cent; psychoses with mental deficiency, 14, or 3.64 per cent; undiagnosed psychoses, 30, or 7.79 per cent; and all other psychoses one per cent or less. Two, or .52 per cent, were without psychosis. The psychoses of all first admissions for the year are shown in Table No. 6 on page 30. The forms of mental disease shown by the 4,154 first admissions since October 1, 1920, are summarized as follows: traumatic psychoses, 20, or .48 per cent; senile psychoses, 634, or 15.26 per cent; psychoses with cerebral arteriosclerosis, 860, or 20.70 per cent; general paralysis, 338, or 8.14 per cent; psychoses with cerebral syphilis, 23, or .55 per cent; psychoses with Huntington's chorea, 4, or .09 per cent; psychoses with brain tumor, 9, or .22 per cent; psychoses with other brain or nervous diseases, 69, or 1.66 per cent; alcoholic psychoses, 281, or 6.77 per cent; psychoses due to drugs and other exogenous toxins, 16, or .39 per cent; psychoses with pellagra, 2, or .05 per cent; psychoses with other somatic diseases, 130, or 3.13 per cent; manic-depressive psychoses, 574, or 13.82 per cent; involution melancholia, 92, or 2.21 per cent; dementia praecox, 440, or 10.59 per cent; paranoia or paranoid conditions, 262, or 6.31 per cent; epileptic psychoses, 35, or .84 per cent; psychoneuroses and neuroses, 32, or .77 per cent; psychoses with psychopathic personality, 27, or .65 per cent; psychoses with mental deficiency, 115, or 2.77 per cent; and undiagnosed psychoses, 154, or 3.71 per cent. Thirty-seven, or .89 per cent, were without psychosis. Again attention should be called to the fact that the psychoses represented by our first admissions are not consistent with the admission rate shown by other hospitals. This is due to the fact that the acutely ill, the senile, and the infirm cases from the City of Boston cannot be removed to distant institutions, and for that reason are brought here. It does not mean, of course, that the admission rates for manic-depressive insanity and for dementia praecox are lower in Boston. As a matter of fact, if the senile and arteriosclerotic cases are disregarded, it will be readily apparent that this is not the case.

The forms of mental disease shown by the readmissions for the year, briefly summarized, were as follows: senile psychoses, 7, or 7.29 per cent; psychoses with cerebral arteriosclerosis, 4, or 4.17 per cent; general paralysis, 3, or 3.12 per cent; psychosis with other brain or nervous disease, 1, or 1.04 per cent; alcoholic psychoses, 6, or 6.25 per cent; psychosis with other somatic disease, 1, or 1.04 per cent; manic-depressive psychoses, 43, or 44.80 per cent; dementia praecox, 10, or 10.42 per cent; paranoia or paranoid conditions, 4, or 4.17 per cent; epileptic psychosis, 1, or 1.04 per cent; psychosis with psychopathic personality, 1, or 1.04 per cent; psychoses with mental deficiency, 7, or 7.29 per cent; and undiagnosed psychoses, 8, or 8.33 per cent.

Of the 96 readmissions, 40, or 41.67 per cent, were committed under the provisions of section 51, chapter 123, of the General Laws; 49, or 51.04 per cent, were temporary care cases (section 79, chapter 123); 5, or 5.21 per cent, were observation cases (section 77, chapter 123,); 1, or 1.04 per cent, was committed from observation (section R. C. 77, chapter 123,); and 1, or 1.04 per cent, was an emergency case (section 78, chapter 123). No voluntary cases (section 86, chapter 123,), no cases pending examination and hearing (section 55, chapter 123), and no cases held under complaint or indictment (section 100, chapter 123) were included

in the readmissions for the year.

The following tables show the psychoses of the 385 first admissions for the year, classified according to legal status:

*Psychoses of Committed Cases (Section 51, Chapter 123, General Laws)*

	Males	Females	Totals
Traumatic psychosis . . . . .	1	—	1
Senile psychoses . . . . .	6	19	25
Psychoses with cerebral arteriosclerosis . . . . .	29	25	54
General paralysis . . . . .	13	5	18
Psychoses with cerebral syphilis . . . . .	—	—	—
Psychoses with brain tumor . . . . .	—	—	—
Psychoses with other brain or nervous diseases . . . . .	2	4	6
Alcoholic psychoses . . . . .	7	2	9
Psychosis due to drugs or other exogenous toxins . . . . .	—	1	1
Psychoses with other somatic diseases . . . . .	1	3	4
Manic-depressive psychoses . . . . .	21	25	46
Involution melancholia . . . . .	1	2	3
Dementia praecox . . . . .	7	3	10
Paranoia and paranoid conditions . . . . .	3	11	14
Epileptic psychoses . . . . .	0	2	2
Psychoneuroses and neuroses . . . . .	1	2	3
Psychosis with psychopathic personality . . . . .	—	1	1
Psychoses with mental deficiency . . . . .	4	4	8
Undiagnosed psychoses . . . . .	14	5	19
Without psychosis . . . . .	1	1	2
Diagnosis deferred . . . . .	2	—	2
Total . . . . .	113	115	228

*Psychosis of Case Committed from Observation (Chapter 19, Acts of 1924)*

	Males	Females	Totals
Paranoia or paranoid condition . . . . .	0	1	1

*Psychoses of Observation Cases (Section 77, Chapter 123, General Laws)*

	Males	Females	Totals
Traumatic psychosis . . . . .	1	—	1
Senile psychosis . . . . .	—	1	1
Psychoses with cerebral arteriosclerosis . . . . .	1	1	2
General paralysis . . . . .	1	—	1
Psychosis with other brain or nervous disease . . . . .	1	—	1
Alcoholic psychoses . . . . .	2	1	3
Manic-depressive psychoses . . . . .	—	2	2
Involution melancholia . . . . .	1	—	1
Paranoia and paranoid conditions . . . . .	2	3	5
Psychoneuroses and neuroses . . . . .	2	1	3
Psychosis with psychopathic personality . . . . .	—	1	1
Psychosis with mental deficiency . . . . .	—	1	1
Undiagnosed psychoses . . . . .	2	—	2
Total . . . . .	13	11	24

*Psychoses of Temporary Care Cases (Section 79, Chapter 123, General Laws)*

	Males	Females	Totals
Senile psychoses . . . . .	3	16	19
Psychoses with cerebral arteriosclerosis . . . . .	26	21	47
General paralysis . . . . .	5	1	6
Psychosis with cerebral syphilis . . . . .	1	—	1
Psychosis with brain tumor . . . . .	—	1	1
Psychoses with other brain or nervous diseases . . . . .	—	2	2
Alcoholic psychoses . . . . .	3	3	6
Psychosis due to drugs and other exogenous toxins . . . . .	—	1	1
Psychoses with other somatic diseases . . . . .	3	4	7
Manic-depressive psychoses . . . . .	4	10	14
Involution melancholia . . . . .	—	3	3
Dementia praecox . . . . .	5	1	6
Paranoia and paranoid conditions . . . . .	—	3	3
Epileptic psychosis . . . . .	1	—	1
Psychoneurosis or neurosis . . . . .	—	1	1
Psychoses with mental deficiency . . . . .	1	4	5
Undiagnosed psychoses . . . . .	6	3	9
Total . . . . .	58	74	132

Two hundred and seventy-six (276) temporary care cases (Sec. 79, Ch. 123, G. L.) were admitted during the year ending September 30, 1930. Of these, 165, or 59.78 per cent, were committed under the provisions of sections 51, Chapter 123, G. L.; 24, or 8.69 per cent, changed to observation status; none to voluntary status; 1, or .36 per cent, to emergency status; 68, or 24.64 per cent, were discharged; 14, or 5.07 per cent, died; and 2, or .72 per cent, remained at the end of the statistical year. Of the 68 discharges, 4, or 5.88 per cent, were discharged as recovered;

6, or 8.83 per cent, were discharged as improved; 40, or 58.82 per cent, as unimproved; and 18, or 26.47 per cent, as without psychosis.

Two emergency cases (Sec. 78, Ch. 123, G. L.), including one case from section 79, Chapter 123, G. L., were admitted during the year. These were both committed in accordance with section 51, Chapter 123, G. L., and none remained at the end of the statistical year.

Eighty-four (84) observation cases (sec. 77, Ch. 123, G. L.), including 24 cases from section 79, were admitted during the year. Of these, 36, or 42.86 per cent, were subsequently committed under the provisions of Chapter 19, Acts of 1929; 37, or 44.05 per cent, were discharged; 3, or 3.58 per cent, died; and 8, or 9.52 per cent, remained at the end of the statistical year. Of the 37 discharges, 6, or 16.22 per cent, were discharged as recovered; 4, or 10.81 per cent, were discharged as improved; 1, or 2.70 per cent, as unimproved; and 26, or 70.27 per cent, as without psychosis.

Twenty cases held under complaint or indictment (sec. 100, Ch. 123, G. L.) were admitted during the year. Of these, 14 were discharged and returned to Court, and 6 remained at the end of the statistical year. Of the 14 discharges, 2, or 14.29 per cent, were discharged as improved; 5, or 35.71 per cent, as unimproved; and, 7, or 50 per cent, as without psychosis.

No voluntary cases (sec. 86, Ch. 123, G. L.) were admitted during the year.

No cases pending examination and hearing (sec. 55, Ch. 123, G. L.) were admitted during the year.

No cases acquitted of murder on the grounds of insanity (sec. 101, Ch. 123, G. L.) were admitted during the year.

The following table shows the psychoses of all cases admitted as temporary care, all forms, and subsequently committed under the provisions of section 51, Chapter 123, General Laws, or under the provisions of Chapter 19, Acts of 1924 (committed from observation), for the ten-year period beginning October 1, 1920.

	Males.	Females.	Totals
Traumatic psychoses . . . . .	5	1	6
Senile psychoses . . . . .	63	195	258
Psychoses with cerebral arteriosclerosis . . . . .	169	155	324
General paralysis . . . . .	50	14	64
Psychoses with cerebral syphilis . . . . .	7	5	12
Psychoses with Huntington's chorea . . . . .	—	2	2
Psychoses with brain tumor . . . . .	2	1	3
Psychoses with other brain or nervous diseases . . . . .	17	6	23
Alcoholic psychoses . . . . .	60	25	85
Psychoses due to drugs and other exogenous toxins . . . . .	1	5	6
Psychoses with pellagra . . . . .	—	—	—
Psychoses with other somatic diseases . . . . .	22	35	57
Manic-depressive psychoses . . . . .	82	156	238
Involution melancholia . . . . .	3	17	20
Dementia praecox . . . . .	66	64	130
Paranoia or paranoid conditions . . . . .	15	57	72
Epileptic psychoses . . . . .	6	4	10
Psychoneuroses and neuroses . . . . .	8	8	16
Psychoses with psychopathic personality . . . . .	9	9	18
Psychoses with mental deficiency . . . . .	19	27	46
Undiagnosed psychoses . . . . .	34	21	55
Without psychosis . . . . .	3	4	7
Diagnosis deferred . . . . .	1	1	2
Total . . . . .	642	812	1454

The total number of insane cases discharged during the year was 181. Of this number 78, or 43.09 per cent, were discharged as recovered; 83, or 45.86 per cent, as improved; 19, or 10.50 per cent, as unimproved; and 1, or .55 per cent, as without psychosis. Of the 78 recovered cases, 1, or 1.28 per cent, was a case of psychosis with other brain or nervous disease; 7, or 8.99 per cent, were cases of alcoholic psychosis; 2, or 2.56 per cent, psychosis due to drugs or other exogenous toxins; 1, or 1.28 per cent, psychosis with other somatic disease; 57, or 73.08 per cent, manic-depressive psychosis; 1, or 1.28 per cent, involution melancholia; 2, or 2.56 per cent, paranoia or paranoid condition; 1, or 1.28 per cent, psychosis with psychopathic personality; 5, or 6.41 per cent, psychosis with mental deficiency; and 1, or 1.28 per cent, undiagnosed psychosis. Of the 83 cases discharged as improved, 7, or 8.43 per cent, were cases of senile psychosis; 9, or 10.84 per cent, psychosis with cerebral arteriosclerosis; 2, or 2.41 per cent, general paralysis;

2, or 2.41 per cent, psychosis with cerebral syphilis; 2, or 2.41 per cent, psychosis with other brain or nervous disease; 7, or 8.43 per cent, alcoholic psychosis; 1, or 1.20 per cent, psychosis with other somatic disease; 20, or 24.10 per cent, manic-depressive psychosis; 10, or 12.05 per cent, dementia praecox; 13, or 15.66 per cent, paranoia or paranoid condition; 1, or 1.20 per cent, epileptic psychosis; 1, or 1.20 per cent, psychoneurosis or neurosis; 6, or 7.23 per cent, psychosis with mental deficiency; and 2, or 2.41 per cent, undiagnosed psychosis. Of the 19 cases discharged as unimproved, 2, or 10.53 per cent, were cases of senile psychosis; 5, or 26.32 per cent, psychosis with cerebral arteriosclerosis; 2, or 10.53 per cent, general paralysis; 1, or 5.26 per cent, alcoholic psychoses; 1, or 5.26 per cent, psychosis with other somatic disease; 4, or 21.05 per cent, dementia praecox; and 4, or 21.05 per cent, paranoia or paranoid condition.

The following is a study of the entire hospital residence (including other institutions for mental diseases) of the cases discharged during the year: One, or .55 per cent, was discharged after a residence of less than one month; 13, or 7.18 per cent, after a residence of from one to six months; 6, or 3.32 per cent, from six months to one year; 77, or 42.54 per cent, one to two years; 34, or 18.79 per cent, two to three years; 15, or 8.29 per cent, three to four years; 5, or 2.76 per cent, four to five years; 20, or 11.05 per cent, five to ten years; 10, or 5.52 per cent, ten years or over. The average duration of hospital residence was three years and twenty-seven days.

Of the 217 deaths occurring during the year, 140, or 64.51 per cent, represented cases dying at the age of sixty or over. In 79, or 36.40 per cent, death occurred at the age of seventy or over. Of the 2,618 deaths occurring at the hospital during the ten-year period beginning October 1, 1920, 1,784, or 68.15 per cent, were cases dying at the age of sixty or over; and in 957, or 36.55 per cent, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: bronchopneumonia, 69, or 31.80 per cent; arteriosclerosis, 19, or 9.75 per cent; tuberculosis of the lungs, 20, or 9.22 per cent; endocarditis and myocarditis, 40, or 18.44 per cent; general paralysis of the insane, 15, or 6.91 per cent; lobar pneumonia, 9, or 4.15 per cent; cerebral hemorrhage, 6, or 2.76 per cent; and cancer, 9, or 4.15 per cent.

The psychoses represented by deaths occurring in the hospital during the year were as follows: senile psychoses, 42, or 19.35 per cent; psychoses with cerebral arteriosclerosis, 69, or 31.80 per cent; general paralysis, 21, or 9.67 per cent; alcoholic psychoses, 10, or 4.61 per cent; manic-depressive psychoses, 10, or 4.61 per cent; involution melancholia, 4, or 1.84 per cent; dementia praecox, 26, or 12.00 per cent; paranoia and paranoid conditions, 9, or 4.15 per cent; psychoses with other brain or nervous diseases, 6, or 2.76 per cent; psychoses with other somatic diseases, 10, or 4.61 per cent; psychoses with mental deficiency, 3, or 1.38 per cent; psychoses with cerebral syphilis and epileptic psychoses, each 2, or .92 per cent; and traumatic psychosis, psychosis with Huntington's chorea, and psychosis with psychopathic personality, each 1, or .46 per cent. Of the 42 cases of senile psychosis dying in the hospital during the year, 13, or 30.95 per cent, were due to bronchopneumonia, and 12, or 28.57 per cent, to endocarditis and myocarditis. Of the 69 cases of psychosis with cerebral arteriosclerosis, death was due in 33, or 47.82 per cent, to bronchopneumonia, in 14, or 20.30 per cent, to endocarditis and myocarditis, and in 11, or 15.94 per cent, death was attributed directly to arteriosclerosis. Of the 21 cases of general paralysis, 4, or 19.05 per cent, were reported as dying from bronchopneumonia, and in 15, or 71.43 per cent, general paralysis of the insane was reported as the cause of death, although bronchopneumonia occurred in seven of these latter cases also, making a total of 11 cases of bronchopneumonia. Of the 26 cases of dementia praecox, death was due to bronchopneumonia in 3, or 11.54 per cent, to lobar pneumonia, in 4, or 15.39 per cent; and to pulmonary tuberculosis, in 12, or 46.15 per cent.

Of the 217 patients dying in the hospital during the year, the total duration of hospital residence was as follows: less than one year, 114, or 52.53 per cent; one to three years, 30, or 13.82 per cent; three to five years, 12, or 5.53 per cent; five to seven years, 12, or 5.53 per cent; seven to nine years, 5, or 2.30 per cent; nine to eleven years, 10, or 4.60 per cent; eleven to fifteen years, 13, or 6.00 per cent;

fifteen to twenty years, 8, or 3.69 per cent; and twenty years or over, 13, or 6.00 per cent. The duration of hospital residence was ascertained in all cases. The psychoses showing the longest hospital residence were as follows: alcoholic psychosis, one over 19 years; dementia praecox, four, 15 to 20 years; five, 20 to 25 years; three, 25 to 30 years; one, 33 years, and one 38 years; paranoia and paranoid conditions, one 16 years, one 19 years, and one 26 years; psychosis with psychopathic personality, one 22 years; and psychosis with mental deficiency, one 17 years and one 22 years. The following shows the duration of hospital residence of all cases dying in the hospital during the ten-year period beginning October 1, 1920: less than one year, 1,321, or 50.46 per cent; one to three years, 557, or 21.27 per cent; three to five years, 229, or 8.75 per cent; five to seven years, 139, or 5.31 per cent; seven to nine years, 90, or 3.43 per cent; nine to eleven years, 53, or 2.03 per cent; eleven to fifteen years, 110, or 4.20 per cent; fifteen to twenty years, 53, or 2.03 per cent; and twenty years or over, 64, or 2.44 per cent. In this total of 2,618 deaths, the duration of hospital residence was unascertained in 2, or .08 per cent.

A study of the hospital residence of all cases admitted is of tremendous importance, and is shown here for the first time. This study is based on an analysis of all the consecutive admissions to the hospital during the ten years beginning October 1, 1920 — a total of 6,368 — from which have been excluded all such admissions who have died or have been transferred during that time to other institutions for mental diseases. No consideration has been given to the deaths or transfers owing to the fact that these cases represent an uncompleted hospital residence, and it is impossible to determine what their hospital residence would have been had it not been terminated by death or transfer.

This study shows that 6.28 per cent were discharged after a residence in the hospital of seven days or less; 17.44 per cent, after thirty days or less; 37.98 per cent, after six months or less; and 46.89 per cent, after one year or less. These facts are in startling variance with the popular idea that few patients, if any, are ever discharged from mental hospitals, and shows that the turnover of population is not radically different from that in general hospitals. It is interesting to note that of the above 4,041 consecutive admissions 12.50 per cent remained in the hospital after a residence of five years or more. This may be looked upon as fairly representative of the percentage of admissions destined to become permanent residents of our institutions.

The following general information relating to the ward service should be of interest:

	Males	Females	Totals	Percent
Average daily population . . . . .	992.60	1,270.28	2,262.88	100.00
In bed . . . . .	104.32	128.08	232.40	10.27
Congregate dining room . . . . .	851.06	772.47	1,623.53	71.75
Eating in wards . . . . .	141.54	497.81	639.35	28.25
Fed by nurses . . . . .	15.39	82.51	97.90	4.32
Idle . . . . .	356.36	633.39	989.75	43.53
Employed . . . . .	636.24	636.89	1,273.13	56.47
Parole of grounds . . . . .	105.23	14.80	120.03	5.30
Out for exercise . . . . .	883.15	837.74	1,720.89	76.05
Noisy . . . . .	51.26	224.01	275.27	12.16
Violent . . . . .	.29	55.03	55.32	2.44
Destructive . . . . .	17.72	175.55	193.27	8.54
Soiled or wet . . . . .	100.27	198.46	298.73	13.20
Taking medicine . . . . .	32.15	28.87	61.02	2.70
Epileptic . . . . .	16.92	17.61	34.53	1.52
Tubercular . . . . .	19.14	37.87	57.01	2.52
Infirm . . . . .	370.47	395.20	765.67	33.83
In restraint . . . . .	4.20	7.98	12.18	.52
In seclusion . . . . .	3.89	10.94	14.83	.64

The average daily number for the entire year is represented in each instance in the percentages given above, that is: the average daily number of patients in bed was 232.40, or 10.27 per cent of the average daily number of patients in the wards of the hospital for the year, and the average daily number out for exercise was 1,720.89, or 76.05 per cent of the same average daily population. The large percentage of bed cases shown, over ten per cent, is explained by the fact that many senile and infirm cases, which cannot be readily removed to institutions outside of the metropolitan district, are of necessity received at the Boston State Hospital. This accounts in some measure for the large proportion of our patients who belong to the infirmary class — about thirty-four per cent of the total number cared for.



It will be noted that the proportion of our patients who go out for exercise is quite large, taking into consideration the percentage of infirm, including the bed patients, and a gratifying average daily number of patients is employed in useful occupations. The average daily number of noisy patients and the average daily number of violent patients are of considerable interest, the latter being somewhat at variance with popular ideas regarding institutions of this type. It will be observed that the proportion of women greatly exceeds that of men in those who are reported noisy, violent, and destructive. The increase in admission rate of suicidal patients accounts for the somewhat higher percentage of restraint and seclusion over the preceding year.

#### GENERAL HEALTH OF THE HOSPITAL

With the exception of a small epidemic of the grippe, the general health of the patients and employees has been good throughout the year. In the interval between April 18 and April 30, 1930, fourteen of the more deteriorated patients in the West C Building developed the grippe. Of these, twelve recovered, three developed lobar pneumonia, and two died. The average duration of the acute illness was four days, and, except in the cases which developed pneumonia, the recovery was rapid and convalescence short. There were no cases of a similar nature in any other part of the hospital, the outbreak being confined entirely to the West C Building.

Early in the year, two cases of scarlet fever occurred. Both were in women patients who were located on widely separated wards. No other cases appeared, and it was thought probable that the disease was brought to the hospital by visitors. Both of these cases made uneventful recoveries. One case of diphtheria occurred in a woman patient. The disease assumed a mild form and the patient made a satisfactory recovery. Two attendant nurses, sisters, who occupied the same room, developed measles at practically the same time. They were sent to the South Department of the Boston City Hospital, where the disease ran an uncomplicated course, and eventually both employees returned to duty at this hospital. Two cases of pellagra occurred during the year. Both of these patients were recent admissions who gave a history of having been taking a poorly balanced and improper diet for some time before coming to the hospital.

There was one death among the employees. Mrs. Elizabeth Harrington, an attendant nurse, who was known to be suffering from a chronic heart disease, experienced an attack of cardiac weakness during which she was semi-conscious for some time. While in this condition she developed bronchopneumonia, from which she died several days later.

Only one serious attempt at suicide occurred during the year. On April 21, 1930, a very depressed patient, located on West G-4, attempted self-destruction by diving headlong through a window, at the same time attempting to mutilate his neck with the jagged glass. He was restrained by the attendant before he had an opportunity to inflict serious injury.

The usual number of accidents and injuries occurred among the patients. These were confined almost entirely to the aged and infirm who sustained them as the result of accidental falls. All such occurrences were reported in the usual manner to the Board of Trustees and the Department of Mental Diseases.

No serious accidents or injuries occurred among the employees, and when injuries of a minor nature did occur they were reported in the usual manner to the Department of Industrial Accidents.

Six hundred and fifty-six (656) Wassermann examinations were made for us by the State Department of Public Health — 559 blood serum and 97 cerebrospinal fluid. There have been 382 treatments for neurosyphilis throughout the year, to 27 different patients, making an average of 14.15 treatments for each patient. A full account of this work is given on another page.

#### EMPLOYEES

On September 30, 1929, there were 436 persons in the employ of the hospital. During the year, 455 were appointed, 404 resigned, and 33 were discharged. Eight hundred and ninety-one persons occupied 474.5 positions — a rotation of 1.88. The average daily number of employees during the year was 447.87, with 3.36 per

cent of vacancies. The average daily number in the ward service was 258.45, with 3.19 per cent of vacancies. The ratio of ward employees to patients was one to 8.71, and of all employees, one to 5.07. The shortage of employees has decreased somewhat during the year. The large number of visitors who come to the hospital to see their relatives and friends require considerable attention on the part of the nurses and attendants. Frequently there are eight or nine hundred visitors on one day, and this has reached a maximum of 1,212. The total number of visitors during the year was 77,970.

#### MEDICAL SERVICE

On December 21, 1929, Dr. Leslie H. Leighton, who was appointed assistant physician on October 24, 1928, resigned to enter private practice. To fill this vacancy, Dr. Winthrop B. Osgood was appointed assistant physician on December 26, 1929. Dr. Osgood was born in Lowell, Mass., and is a graduate of the Lowell High School and Berkeley Preparatory School. He attended Harvard College for three years and received his medical degree from Tufts College Medical School in 1928. He is also a graduate of the Massachusetts College of Pharmacy. He served as an interne at the Lowell Corporation Hospital for one year and was in private practice in Lowell prior to his appointment here. Dr. Dorothy H. Read, appointed assistant physician on July 18, 1928, resigned on January 31, 1930, to enter private practice. She was succeeded by Dr. Hannah V. Mueller, on March 3, 1930, who came here from the Norristown State Hospital, Penn. On account of ill health, her service at this hospital was very short. She resigned and left the hospital on March 21st, and died in Philadelphia on April 7th. Dr. Ilse R. Lauber, who was appointed assistant physician on November 1, 1926, and senior physician on February 25, 1929, resigned on May 31, 1930. Dr. Lillian D. Chapman was appointed assistant physician to succeed Dr. Lauber on July 1, 1930. She is a graduate of the Everett High School and received her medical degree from Tufts College Medical School in 1930. She served as an interne for five months at the New England Hospital for Women and Children and for the two months preceding her appointment here acted as clinical assistant at this hospital. Dr. Eleanor T. Beamer was appointed assistant physician on July 7, 1930, to succeed Dr. Hannah V. Mueller. Dr. Beamer is a graduate of Vassar College and received her medical degree from Columbia University in 1929. She served as interne for one year at the Mary Fletcher Hospital, Burlington, Vt. On July 1, 1930, Dr. William J. Dahill was appointed assistant physician to succeed Dr. James M. Montgomery, who resigned on November 11, 1929. Dr. Dahill was born in New York, graduated from the Arlington, Mass., High School, and from Tufts College Medical School in 1930. He served as clinical assistant at this hospital during the summer of 1929, and as junior interne for two months each at Memorial Hospital, Pawtucket, R. I., and the Cambridge, Mass., Tuberculosis Hospital, and one month at the Providence Lying-In Hospital. Four fourth-year students at the Tufts College Medical School served as clinical assistants during the summer months.

During the year Dr. Edwin H. Place of the Boston City Hospital was appointed consultant in communicable diseases. Dr. Place had been here on many occasions in connection with cases of diphtheria, scarlet fever, and other communicable diseases. Dr. Charles I. Johnson was appointed in April as consulting otolaryngologist to succeed Dr. Edwin A. Meserve, deceased. Dr. Johnson is connected with the Massachusetts Eye and Ear Infirmary and associated with Dr. Tobey, throat specialist. He resigned August 13, 1930, and was succeeded by Dr. Donald H. Macdonald. Dr. Macdonald was born in Baltimore, received the degree of A. B. from Johns Hopkins University in 1922, and M. D. from the same college in 1926. For two years he served as interne at the Massachusetts Eye and Ear Infirmary, where he is now on the visiting staff.

A number of clinics were given to the third year students of Tufts College Medical School by Dr. Roy D. Halloran, Assistant to the Commissioner of the Department of Mental Diseases, and by Dr. Herbert E. Herrin and Dr. Gerald F. Houser, instructors in psychiatry at the Tufts College Medical School. As a part of the fourth year program of that school, two students each month during the school year were given instructions in psychiatry at this hospital and were in residence here. The following other clinics in psychiatry were given by Drs. Herrin and

Houser during the year: three to the third year students of the Boston University School of Medicine; one to the students of the Middlesex School of Medicine; one to the nurses of the Forest Hills Hospital; two to the student nurses at the Cambridge Hospital; and one to the nurses at the Newton Hospital.

A group of six physicians under the auspices of the Rockefeller Foundation were given instruction at the hospital, consisting of information relating to different forms of commitment, some facts pertaining to the keeping of records, hospital administration, and various methods of treatment.

Staff meetings have been held as usual, alternating between the East Group and the West Group, with one meeting each month at the pathological laboratory. At these meetings an effort is made to present all new admissions, as well as cases about to leave the hospital on visit or be discharged.

Dr. Irving J. Walker, Dr. Charles C. Lund, and Dr. Grace E. Rochford have visited the institution as usual during the year and performed such major operations as have been necessary. Dr. William E. Freble, internist, has been called frequently in consultation and has rendered valuable service. During the year 415 patients were examined and treated in the eye clinic, and 441 patients were examined and treated in the ear, nose and throat clinic.

The venereal clinic was conducted during the year by Dr. Gerald F. Houser with the assistance of Dr. Leslie H. Leighton, Dr. Frederick LeDrew, and Dr. William J. Dahill. Tryparsamid, sulpharsphenamin and bismuth were the drugs used, tryparsamid being given only to neurosyphilitics while sulpharsphenamin and bismuth, as well as being given to neurosyphilitics, were used in cases of vascular syphilis. A few cases of neurosyphilis were treated with intramuscular injections of sterile milk. Fifty-eight intravenous injections of tryparsamid were given to nine patients. Four of these improved, one grew definitely worse, and four showed no apparent change. Two hundred and twenty-five intravenous injections of sulpharsphenamin were given to twenty-three patients. Nine of the latter suffered from vascular syphilis and, of these, two apparently have recovered, four have improved, and three are apparently unchanged. Of the fourteen neurosyphilitics receiving sulpharsphenamin, three grew worse, nine were unchanged, and two showed improvement. The latter two, however, also received tryparsamid. An intravenous bismuth preparation was used in five cases, seventy-six injections in all, but had no demonstrable effect in the cases of neurosyphilis. In one instance it was used to supplement sulpharsphenamin therapy, with very good results. Four patients received twenty-three intramuscular injections of sterile milk. Of these, one improved and the other three were unchanged.

#### RESEARCH DEPARTMENT

The research group working under the direction of the Department of Mental Diseases is comprised of the director, Dr. Abraham Myerson, his associate, Dr. Roy D. Halloran, Dr. William Dameshek, who is especially interested in the haematology of the psychoses, Dr. Julius Loman, who acts as general assistant in the research, and Miss Caroline Stephenson, who does the biochemical and general technical work. On November 24th Dr. Pelagio Potenciano, a graduate of the University of the Philippines and a former resident of Manila, joined this group as resident physician for research purposes.

The researches conducted at the Boston State Hospital for the past year may be divided into three main groups. The first of these (1) concerns itself with the biochemistry of the brain blood by the utilization of the technique known as the internal jugular puncture. This technique, introduced by Myerson and Halloran in 1927, shows that the brain is an active metabolic organ consuming oxygen, producing carbon dioxide and utilizing sugar. While, of course, it has always been inferred that the brain is active, the degree of activity has not been measurable up to this time. A paper concerning the activity of the brain under normal conditions, during ether anesthetization and under other circumstances, was read before the Massachusetts Society of Psychiatry, the Boston Society of Psychiatry and the American Psychiatric Association, and is now being published in the American Journal of Psychiatry to appear in the next issue. (2) Studies were made of the blood in various types of mental diseases, mainly under the leadership of Dr.

Dameshek. This research indicates that the monocytes of the blood are present in somewhat greater than normal quantities in the blood of general paretics. Acting on the assumption that the monocyte is a factor in immunity, a therapeutic research is now in progress by which the monocytes of the blood will be stimulated in cases of patients suffering from general paresis with the hope that this stimulation will help in the treatment. (3) A statistical study comparing the fate of untreated cases of general paresis was made by Dr. Loman. It was shown that treatment is of value when it is undertaken early in the history of the disease. (4) A study of the sinking time of the red corpuscles was undertaken by Miss Stephenson. This research has not reached a conclusion, but tends to be confirmatory of previous publications on the subject. Considerable work has been done in the laboratory on the effect of drugs on the biochemistry of the brain. This work, on the whole, has been negative in that no important facts of value came to light. The projected researches will continue, first, with the study of the biochemistry of the brain, secondly, therapeutic researches in general paresis, and, thirdly, special work done in conjunction with the Department of Physiology of Tufts College Medical School in relation to the blood changes in fever.

#### SOCIAL SERVICE DEPARTMENT

The work of the department has been continued under the direction of Miss Florence E. Armstrong, head social worker. During the year, two assistant social service workers left to take positions in other types of social work. One of these vacancies was filled by the appointment of a worker who was subsequently transferred to the Boston Psychopathic Hospital at a higher salary, and succeeded here by a graduate of the Simmons College School for Social Work. The other position was filled temporarily during the summer and is now occupied by one of the students who completed the course of training at this hospital last year.

The most important contribution of the department is the work done on cases admitted for observation, in 104 of which histories have been taken and full investigations made, it being frequently found that observation on the ward alone does not give the medical staff a sufficient understanding of such persons. Among these were twenty admitted from the courts under criminal complaint or indictment. In cases returned as without psychosis, the department finds out what action is taken by the court. The services of the department are also of value in promoting the social adjustment, in the family or community, of observation cases discharged without psychosis. For assistance in the determination of diagnosis, full investigations are made frequently for the physicians in cases under regular commitment. Routine histories are also taken by the social workers, and much valuable assistance given in locating friends and relatives for the purpose of obtaining information desired for various reasons. Inasmuch as this is done as soon as possible after admission, fewer patients reach the danger list before such an investigation has been made. This is important because the personnel of the department is too limited to cope with many such emergencies. The supervision of patients on visit is also an important function of the social service department, and includes observation of their mental condition and their conduct in relation to the community. A small group known as Major Service cases is carried throughout the year. Upon admission, these patients receive a thorough study of personality and makeup, and a careful investigation is made of the trends in the background, and an appraisal of social relations. During the hospital residence of the patient, an effort is made to make clear to the family and friends the nature of the patient's difficulty in order to establish a more sympathetic relationship. This insures a good foundation for a finished piece of case work, and the cooperation of the patient and his family is more gratefully and intelligently given than it would be without such preparation. The department has also undertaken the study of children of patients in selected cases to determine whether or not there are evidences of psychotic parental influence, either hereditary or environmental. It is frequently found that patients in the midst of psychotic episodes have been assisted by their young children. It is thought that in the future these studies will prove of real value whenever these children present future problems; and such cases are always available for research by agencies interested in mental hygiene and child guidance.

To extend the work of this department, both for the hospital and for the community, a greater number of social workers should be provided.

From December 1, 1929, to September 1, 1930, three students were given a course of training in State hospital social service, in accordance with a program including a series of lectures in psychiatry by members of the medical staff, instruction by the head social worker in practical problems to be met with, the organization of State Hospitals, and the ethics of social work. Assignments for social service are carefully planned, beginning with simple inquiries and gradually increasing in complexity until they embrace investigations to determine the presence of a psychosis or establish a diagnosis, and social treatment. For six weeks during the spring, these students attended an institute at the Simmons College School of Social Work, and devoted two days a week for three months to work for the Family Welfare Society in different districts in Boston. Of the four students assigned to this hospital in September, 1930, for this course of training, only one is here at this time. The student now at this hospital is receiving no lectures, but is being trained primarily for usefulness to the hospital. She is one of a group of eleven young women placed in the Massachusetts State hospitals for training. She is attending the Simmons College School for Social Work and will receive her period of Family Welfare training later. Of the three students who completed the course last year, one was appointed on the social service staff at the Walter E. Fernald State School one is in charge of the social service department at the Gardner State Colony, and one was appointed assistant social service worker at this institution. During the winter and spring of 1929-1930, two students of the Simmons College School for Social Work were assigned to this hospital for two days a week for training in field work. One of these students was appointed on the social service staff of the State Hospital for Mental Diseases at Howard, R. I., and the other is a social service worker at the Walter E. Fernald State School. A third student at the Simmons College school was received for training late in the spring and remained at the hospital for one month after the conclusion of the course at the college. A French girl, on a fellowship from France, she returned to that country to be the only trained social worker on the staff of a mental hospital in Paris. In September 1930 we received a student in the Simmons College School who has been an executive in a Family Welfare agency in Newport, R. I. She requested to be allowed to remain in this hospital until the end of the student year to finish her field training in psychiatric work. It would appear to be obvious that a course of training for State hospital social workers should cover a period of two years. After the completion of such a course, students would have a standing that would compare favorably with that of the graduates of the other schools of social work. In addition to the social case work of State hospitals, this training course should cover a uniform curriculum for all the hospitals receiving such students. This should include lectures in psychiatry, physiology, and the subject of physical health and disease, reading definitely prescribed and collateral reading suggested, and a special study or thesis, the subject matter to be drawn from the wealth of material in the State hospitals. This training school could be affiliated logically with a school of public health such as the Harvard School of Public Health, since many of the problems of State hospitals are of that nature. Students in such training schools should have the benefit of the broadest vision of what constitutes public health in both physical and mental spheres. The general hospitals offer ample opportunity for a wide knowledge of case work in this connection. Students in this course should be drawn, to a great extent, from the group of our College graduates. Such a training course would be eagerly sought by many young women who are deeply interested in State hospital work and are desirous of obtaining adequate training without the expense involved in attending the average school of social work. Graduates of such a training course would be welcomed by the Superintendents of State hospitals throughout the country.

The following table shows the movement of patients under supervision and the social service work done during the year:

	M.	F.	T.
In family care September 30, 1929 . . . . .	—	7	7
On visit September 30, 1929 . . . . .	55	123	178

On escape September 30, 1929 . . . . .	6	1	7
Dismissed to family care during the year . . . . .	—	7	7
Went out on visit . . . . .	£22	217	839
Escaped . . . . .	14	2	16
Admitted from family care . . . . .	—	5	5
Admitted from visit . . . . .	548	118	666
Admitted from escape . . . . .	11	2	13
Admitted from family care and discharged . . . . .	—	—	—
Admitted from visit and discharged . . . . .	46	108	154
Admitted from escape and discharged . . . . .	4	1	5
In family care September 30, 1930 . . . . .	—	9	9
On visit September 30, 1930 . . . . .	83	114	197
On escape September 30, 1930 . . . . .	5	—	5
Total number of cases considered . . . . .			643
New cases . . . . .			374
Renewed cases within the year . . . . .			86
Renewed cases from previous years . . . . .			136
Cases continued from previous year . . . . .			47
Cases closed during the year . . . . .			553
Cases continued to following year . . . . .			90

#### PATHOLOGICAL LABORATORY

The work of the laboratory has been carried on during the year by Dr. Naomi Raskin, pathologist, with the assistance of a laboratory technician. The following is a summary of the routine work of the pathological laboratory for the year: autopsies, 126; bacteriological slide examinations, 80; bacteriological culture examinations, 8; blood examinations: red counts, 108, white counts, 112, differential counts, 112, hemoglobin estimations, 112; pleural effusion examinations, 2; renal functional test, 1; spinal fluid examinations, complete, 112; sputum examinations, 40; examinations of feces, 8; surgical specimen, 1; tissue sections, 1,429; urinalyses, 1,237; examination of gastric contents, 3.

The number of deaths during the year was 236, of which 126 came to autopsy, making the autopsy percentage 53.40 for the year.

The psychoses represented in cases coming to autopsy were as follows: senile psychoses, 28; psychoses with cerebral arteriosclerosis, 39; general paralysis, 15; psychoses with cerebral syphilis, 4; psychosis with brain tumor, 1; psychoses with other brain or nervous diseases, 5; alcoholic psychoses, 7; psychoses with other somatic diseases, 5; manic-depressive psychoses, 2; involution melancholia, 1; dementia praecox, 13; paranoia or paranoid conditions, 5; psychosis with psychopathic personality, 1.

The following were the causes of death: aneurysm of the aorta, 1; bronchitis, chronic, 1; bronchopneumonia, 42; carcinoma of both breasts with metastases to lungs, 1; carcinoma of brain, 1; carcinoma of right kidney with metastasis to lungs, 1; carcinomatosis, 2; cardiovascular renal disease, 2; cerebral hemorrhage, 2; cholecystitis, acute, and cholelithiasis, 1; coronary thrombosis, 1; endocarditis, chronic, 10; gastric ulcer, 1; general arteriosclerosis, 5; general paralysis, 1; hemorrhage from rectum, general arteriosclerosis, 1; hypostatic pneumonia, chronic infective arthritis, 1; interlobular purulent pleurisy, hypertrophy of the prostate, with abscess, 1; internal hemorrhagic pachymeningitis, 1; lobar pneumonia, 6; myocarditis, chronic, 19; nephritis, chronic, 1; paralysis agitans, 1; peritonitis, general, following acute appendicitis, 1; peritonitis, general, perforating ulcer of the stomach, 1; pernicious anemia, 1; pleurisy with effusion, pulmonary tuberculosis, 1; rupture of the heart from coronary sclerosis, general and cerebral arteriosclerosis, 1; septic endocarditis, chronic nephritis, 1; septic sore throat, septicemia, 1; septicemia secondary to abscess of the prostate, streptococcus hemolyticus, 1; tuberculosis, general, 1; tuberculosis, pulmonary, 13; tumor of the pituitary gland, 1.

#### DENTISTRY

The resident dentist, Dr. George S. Rileigh, has carried on the dental work of the hospital throughout the year, with the aid of one dental assistant. An effort is

made to give each patient an examination at least twice during the year, although this is not possible in all cases. Each new admission is thoroughly examined within a day after arrival, and his condition recorded upon dental charts, thus completing the physician's physical examination. Immediate attention is given to those who require treatment on arrival. In a great number of cases where the use of a local anesthetic has been contraindicated, general anesthesia is given. Whenever necessary, curetting all diseased sockets and suturing of the tissue have been regular procedures. Gauze drains have been used to a considerable extent whenever the operation required them. X-ray pictures have also been taken to help in diagnosis of suspicious conditions. The aim of the dental department is to preserve and restore, whenever possible, the masticatory apparatus as a whole. The following is a summary of the work accomplished during the year: examinations, 951; extractions, 1,184; fillings, 453; prophylaxis, 498; restorations, 365; treatments, 1,574; patients treated, 2,454.

#### HYDROTHERAPY

The work of the hydrotherapy department has been carried on during the year under the direction of Mrs. Ina L. Mills at the East Group and Mr. Clarence Pond at the West Group. Five thousand one hundred and forty-six continuous baths were given to 67 different patients, and 14,350 wet sheet packs to 150 different patients, making the average number of continuous baths 76.81 per patient and that of packs 95.66. The average daily number for the year was 14.10 continuous baths and 39.31 packs. The following treatments were given during the year: salt glows, 809; saline baths, 997; foot baths as preparatory treatments, 946; tub shampoos, 687; hair shampoos, 743; rain douches, 604; fan douches, 1,376; pail douches, 412; needle sprays, 4,088; Sitz baths, 70; hot and cold to spine, 71; jet douches, 14; and cabinet baths, 12. In colon therapy, 1,155 treatments were given to fifteen patients. Instruction was carried on as usual, and 150 lessons were given.

#### SCHOOL CLINIC

Dr. Alberta S. B. Guibord has continued the work of the school clinic during the year, with the assistance of a psychologist. Five hundred and one examinations have been made during the past year, classified as follows: feeble-minded, 163; borderline, 142; dull normal, 101; normal, 65; superior normal, 2; diagnosis deferred, 28. Out of 51 pupils examined at the Prendergast Preventorium, only one was feeble-minded. This brings the number of normal pupils up to a higher point than would have been the case otherwise. The schools in Everett and Somerville have been covered by the school clinic, as in the past years.

#### TRAINING SCHOOL FOR NURSES

For many years the mental hospitals of this country have been training nurses and attempting to compete with the general hospitals in their own field of activity. Recent events have demonstrated beyond a doubt that this cannot be done successfully. During the year 1930 the number of nurses graduating from the Massachusetts State hospital training schools was as follows: Danvers State Hospital, 3; Medfield State Hospital, 4; Monson State Hospital, 2; Taunton State Hospital, 1; Worcester State Hospital, 7; Grafton State Hospital, none; a total of 17 graduates, or an average of 2.83 graduates per school. The situation in New York has not been materially different. A recent report shows that in the training schools of that State on October 1, 1930, in the Registered Nurse group there was an average of 27.07 pupils per hospital. There was in the senior class an average of 6.64 in the Registered Nurse group. Conditions have not varied much in the mental hospitals of the country, as a whole. The Boston State Hospital has withdrawn from the general hospital training school field and is devoting its energies entirely to a training school for psychiatric nurses. There would appear to be no reason why we should attempt to train people to compete with general hospitals in their own field. There is every reason why we should make some effort to train our employees in our own specialty and to give special consideration to teaching them to care properly for our own patients and fit themselves at the same time for psychiatric nursing either in the community or elsewhere. The Department of Mental Diseases has very wisely announced the policy of discontinuing general hospital training school

activities in all institutions which are not able to graduate consistently ten pupils per year. In all such hospitals training schools for psychiatric nurses are to be established. Our training school for psychiatric nurses opened its first session on October 1, 1930, with thirty pupils. A two year course of intensive training will be given to all of the ward employees whose educational qualifications are such as to permit of their taking this course with any degree of profit. Only those who have had a grammar school education will be allowed to enter. The practical work includes instruction and actual nursing care, in the wards, of patients suffering from the various types of mental disease. Special emphasis is given to the nursing care of cases showing symptoms of excitement, depression, confusion, suicidal and homicidal tendencies and epilepsy. Each student receives special instruction in medical and surgical nursing, and practical work with acute and chronic bed cases. Practical instruction is also given in hydrotherapy, physiotherapy, in preparing and serving food, in preparing surgical dressings, and in assisting at operations, etc. Lectures, recitations, and demonstrations are held according to schedule. When the full term of two years is completed and the pupils are regarded as thoroughly qualified, they receive, if their conduct and examinations have been satisfactory, a certificate to that effect. The graduates of this course will be added to the list of eligibles for promotion in the hospitals.

The systematic instruction of attendant nurses, both male and female, not enrolled in other training school classes, is being continued along the lines prescribed by the Committee on Training Schools, representing the Department of Mental Diseases, and 213 have received such instruction during the year. We have now in the ward service eight graduates of the Boston State Hospital Training School.

#### OCCUPATIONS AND INDUSTRIES

The work of the occupational therapy department was carried on under the direction of Miss Ruth Spry, head occupational therapist, until her resignation on September 20th. She was succeeded by Miss Augusta R. Hodges, who assumed her duties on October 13th. The department consists of one head occupational therapist and eight assistants. As in former years, classes have been held each day in classrooms in West C-2 and West G-1, and in the basements of West Band West F, as well as in many of the wards. On admission, the patient attends a class where an attempt is made to make him feel at home and to remove the suspicion which is so commonly found in the minds of nearly all who are defective and demented. To overcome the initial disinclination to work and to accustom the patient to his surroundings, games, puzzles, etc., are used, the more serious occupations being taken up later. Although transferred after a short stay in the receiving ward, the patient is followed up and treatment continued in the classroom nearest his ward. The men are engaged in woodwork, weaving, rake knitting, basketry, painting, cord making, rug making, leather work, and designing, and the women do weaving, sewing, needlework of all kinds, rug making, knitting, crocheting, designing and basketry. Approximately 942 patients have come to the department during the year. The average daily number occupied in the male wards was 103, and in the female wards, 331, making a total daily average of 434 occupied. The estimated value of articles produced during the year was \$6,015.08.

The work of the industrial room for women has been carried on, as in past years, by Mrs. Madge B. Richardson. Basketry, rug making, weaving, lace making, embroidery, knitting, sewing, crocheting, mending, etc., are done by these patients. The estimated value of the articles produced in this department during the year is \$2,181.53, in the sewing room \$9,000.80 (a total of \$11,182.33), exclusive of mending, the value of which is estimated at \$4,949.45, making a total of \$16,131.78. Mr. James F. Hurley has continued in charge of the industrial work for men. This is done entirely in the basement of the B Building in the West Group, and includes shoe repairing and various other repair work, the manufacture of several kinds of brushes, brooms, coat hangers, hats, mattresses, pillows, and numerous other articles. The estimated value of articles produced during the year is \$6,024.59, and of renovation and repairs, \$4,719.65, a total of \$10,744.24. The estimated value of all articles produced during the year in the occupational and industrial



departments of the hospital is \$23,222.00, and of renovation and repairs, \$9,669.10, making a total value of \$32,891.10.

#### OCCUPATIONAL THERAPY CENTER AT CITY MILLS, MASSACHUSETTS

In 1921, about three or four patients were placed to board in a private home in Hopkinton. These patients were not sufficiently well to go into their own homes or into the community, yet they were well enough to leave the daily care of the doctor in the hospital. It was believed that the advantages of private home life with its more normal setting, little emphasis on illness, an opportunity to share in the responsibilities of the household, and a considerable degree of freedom of movement not possible among intramural patients, would be to the advantage of these women. An additional feature marked this Center and distinguished it from other boarding homes. This was occupational therapy. At first, an occupational therapist visited the Center weekly and gave directions and supervision to the work of the patients. Shortly thereafter Mrs. L. Vernon Briggs became deeply interested in this feature of the work and financed an occupational therapist's salary, so that one might spend the greater part of the week with the patients and the remainder in selecting materials, securing new ideas of a creative nature, and finding markets for the patients' products. As time went on, the group increased in size, although the maximum has been eleven patients. There has been no fixed time limit to the residence of these patients. It is varied, according to the need of the individual, from two or three weeks to more than a year. Some patients have gone back to the community, making a successful adjustment. Doubtless in many of these cases the period of residence under hospital supervision has been shorter than it would have been had those patients remained within the hospital itself. Some patients have proved to be more strictly hospital cases not amenable to greater freedom, and have been returned to the hospital. It is not the intention of the Center primarily to teach these patients new lines of occupation. The occupational work is purely of a therapeutic nature. The handling of beautiful materials and color arrangements rouses new interest, and there is added stimulus in that their products, which are always of a high order of workmanship, are placed on sale and the patients given some remuneration for their work. The matter of readjustment in the community, either as to the resumption of home duties by the married woman or of duties in the business or industrial world, is cared for by the social worker in the ordinary fashion. The business of the Center is more to turn out well patients than to attempt to direct them toward lines of occupation in the community.

In August, 1930, the occupational therapy center at Hopkinton was moved to City Mills, Mass., near Franklin. The house in Hopkinton having been sold, it was found necessary to make some move. Franklin is easily accessible from Boston, and closer to some of the State hospitals than Hopkinton was. During the year, legislation was passed whereby the State assumed financial responsibility for the board of any patient who needed this assistance in order to be admitted to the center. This arrangement was concluded during the latter part of the summer, and we have been able to maintain a full house since that time. It is hoped that all of the State hospitals will now be able to avail themselves of the opportunity afforded for appropriate cases. The head social worker of the Boston State Hospital is directly responsible to the Department of Mental Diseases for the supervision of this group of patients. During the year ended September 30, 1930, a sale was held of articles made by them, and this brought into the treasury a sum amounting to about \$300. The sale was held at the home of Mrs. Horatio Lamb. Each patient was reasonably remunerated for her work. Throughout the year, purchasing by interested friends has been encouraged, without the formality and setting of a sale place. This has added substantially to the receipts. In addition, the Permanent Charity Fund voted to continue its gift of \$525 for the year. Already new plans are being made for creating new and varied products, so that the patients may have their interest stimulated further. We hope to introduce some entirely new lines of occupation, and look for results in the upbuilding of those patients who have lacked a stimulus previously but who are now enjoying this and also the excellent home care and comparative freedom which are afforded at this place. We have at

present a population of ten patients. Under the limited conditions of the home, probably not more than twelve can be accommodated at any time. It is probable that in the near future it will be necessary to establish one or more centers in other parts of the State. The personnel of the Committee is as follows: Miss Mildred Bradley, Mrs. Sydney Dreyfus, Mrs. Horatio Lamb, Mrs. Horace Morrison, Mrs. Douglas A. Thom, Mrs. Henry Tudor, and Dr. Arthur McGugan, treasurer. The head social worker of the hospital acts as chairman.

#### AGRICULTURAL ACTIVITIES FOR THE YEAR

The work of the farm has been carried on under the direction of Mr. Ralph B. Littlefield throughout the year. A total of 138 acres was under cultivation. This consisted of  $54\frac{3}{4}$  acres devoted to gardening, in addition to 83 acres of meadowland, and  $\frac{1}{4}$  acre of orchards and small fruits. The estimated value of farm products for the year was \$19,426.21.

#### FINANCIAL STATEMENT

The maintenance appropriation for the year was \$856,580.00, with \$27,689.69 brought forward from the preceding year, making a total of \$884,269.69.

	Amount Expended.	Per Capita.	Percentage of Total.
Personal services . . . . .	\$421,930.05	\$185.915	49.665
Travel, transportation, etc., . . . . .	7,940.47	3.499	.935
Food . . . . .	199,428.00	87.874	23.475
Clothing and materials . . . . .	30,016.66	13.226	3.533
Furnishings and household supplies . . . . .	43,746.45	19.276	5.150
Medical and general care . . . . .	30,509.01	13.443	3.591
Religious instruction . . . . .	2,079.99	.917	.245
Heat, light and power . . . . .	69,475.29	30.613	8.178
Farm . . . . .	6,439.97	2.838	.758
Garage, stables and grounds . . . . .	5,597.94	2.467	.659
Repairs, ordinary . . . . .	20,674.03	9.109	2.433
Repairs and renewals . . . . .	11,703.62	5.157	1.378
Total . . . . .	\$849,541.48	\$374.334	100.000

Based on the average daily population of the hospital, 2,269.47, the per capita cost of maintenance for the year was \$374.334, or \$7.198 per week. The per capita cost for the year 1929 was \$371.645, or \$7.147 per week. The type of patients cared for at this hospital, over one-third being of the infirmary class, the necessity of frequent repairs to the old ward buildings, and the absence of a dairy are the most important reasons for the continued high cost of maintenance. In the old ward buildings with their small units and large number of single rooms, the patients require more supervision and consequently more employees than would be necessary under other conditions. No buildings designed for purely custodial patients in considerable numbers have ever been erected at this institution.

#### GENERAL OPERATIONS FOR THE YEAR

An expression of appreciation is due to the Reverend Martin S. Curran, who has been responsible for the religious welfare of the Roman Catholic patients in the hospital, to the Reverend Harold H. Cramer, who has conducted Protestant services weekly, to the Reverend Albert C. Larned, who represents the Episcopal City Mission, and to the Reverend Moses L. Sedar, who has made frequent visits here in behalf of the Jewish patients.

Special attention has been devoted during the year to the entertainment of patients. This includes moving picture shows, dances, etc. The Christmas entertainment was especially enjoyable. The radio service has been extended and now covers practically all of the ward buildings. It is the most popular form of entertainment that we have been able to offer our patients.

The hospital has been visited from time to time by representatives of the Department of Mental Diseases, the Executive Council, and various agents of the Commission on Administration and Finance.

The most important accomplishment of the year was the completion of the new administration building on the corner of Harvard and Morton Streets, occupied on September 29, 1930.

Contracts were awarded by the Department of Mental Diseases on July 31st, 1930, for a building for twenty male employees and a building for sixty female

employees, in the East Group. These were well under way at the end of the year. In the spring of 1931 it will be possible to move the old Austin house and enlarge this for occupancy as an East Group staff house. The remainder of the old East administration building will then be torn down.

An appropriation is also available for a new greenhouse, which will be erected in the coming spring.

The old barn near the East Group administration building, which has stood there for so many years, was torn down and removed on January 30, 1930.

The new property acquired by purchase from the Forest Hills Cemetery, on the south side of Canterbury Street and adjoining our own land, was deeded to the State on July 2, 1929, and was occupied on December 16, 1929.

On December 30, 1929, twenty-four female patients were transferred to the Medfield State Hospital and twenty male patients went to the Gardner State Colony on December 31st.

I regret to say that there was a fire in the supervisor's office in the West G Building on March 4th, 1930, at 9.30 P. M. Not more than \$500 worth of damage was done in all, although there was an extravagant account of this fire in all the Boston newspapers.

The new farm house acquired from the Forest Hills Cemetery was connected with the Metropolitan sewer during the summer.

The work of replacing the steam line from the power house to Harvard Street in the East Group was commenced on August 4th and finished just before the end of the present fiscal year.

It was necessary to replace the steam line in the basement of the West A Building during the summer.

Ward 1 in the West A Building was remodelled to make provision for a continuous bath room. Four tubs will be available, and a fifth one added later.

Gas ranges were installed in the East and West Group kitchens, this work being completed during June. This does away with the use of coal and coke, which have been employed for so many years, prevents a great deal of smoke and discoloration of paint in the buildings, and is much more efficient in every way.

The following painting was done during the year:

*East Group.* The interior of the B Building, the kitchen and dining room building, industrial room and laundry building, and the exterior of the F Building and the chapel.

*West Group.* The interior of Wards 1 and 2, B Building, and the interior of the kitchen and dining room building.

The exterior of the Superintendent's house was also painted.

Nineteen male and thirteen female patients were transferred to the Gardner State Colony on August 5, 1930.

Chapter 420 of the Acts of 1930 provides for the construction of a State highway in the City of Boston beginning at a point on Washington Street near its intersection with the West Roxbury Parkway and thence over public and private lands to Blue Hill Avenue at its intersection with Canterbury Street. Preliminary surveys for the laying out of this highway have been made by the Public Works Department and it has brought to light the fact that they propose to run this highway through the grounds of the Boston State Hospital. Neither the Department of Mental Diseases nor the Trustees of the hospital had any knowledge of this action prior to the survey referred to. If this follows Canterbury Street, it will necessitate the removal of all the buildings which the State purchased last year from the Forest Hills Cemetery and their replacement in some other location. An alternate scheme is to run this road through the East Group from the corner of Canterbury and Morton Streets to a point in the West Group midway between the new Forest Hills Cemetery Group purchased last year and the West B Building. This would not interfere with any of our hospital buildings, but would divide up our land in a very undesirable way. We have been informed by the engineers of the Public Works Department that it is their intention that this road shall be 125 feet in width. In view of the fact that there have been very few, if any, roads of such a width built in the Commonwealth, there would seem to be no reason for this. Morton Street where it is crossed by our steam line is only sixty feet wide. It would seem that there

should be some provision in the law to prevent running a public highway through the grounds of the hospital without a hearing.

The new training school for psychiatric nurses, in accordance with the plans for this work as outlined by the Department of Mental Diseases, was inaugurated on October 1, 1930. This will cover a two year course of instruction. The first class in this school consisted of thirty. Practically the entire course of training will be given at the West Group.

An airplane sign has been painted on the roof of the administration building, showing the word "Boston" and an arrow pointing in the direction of the East Boston airport.

The channel of the Canterbury Branch of Stony Brook is still badly obstructed by weeds, etc. It has not been cleaned out since the summer of 1926.

Dr. Pelagio Potenciano, a graduate of the University of the Philippines and a former resident of Manila, was appointed resident physician for research purposes by the Department of Mental Diseases on November 24th, and has been furnished quarters here.

#### FIRE PREVENTION

Attention should be called to the recommendations of the Fire Commissioner of the City of Boston in 1925 following the Scobey Hospital disaster. "That all the old buildings, wooden and stucco covered, should be demolished and buildings of 1st class fireproof construction be erected in their stead." . . . "These recommendations which may appear extensive, are an urgent necessity and based on the nature of the occupancy, and the character of the construction which is hardly fit for persons of normal physical and mental condition."

#### DEVELOPMENT OF THE HOSPITAL.

There are many things which must be done at this institution if it is to be brought up to date and placed on a level with the best mental hospitals of the day.

The grounds are not properly lighted at night, and our employees, who have to walk long distances to get to the street car line, have been assaulted from time to time in the dark.

A complete system of roads and walks has never been installed, and the attendants working in the West Group cannot get to the car line at certain seasons of the year without walking through the mud or snow.

The hospital has never been entirely surrounded by a fence, and as a result of this our grounds are constantly overrun by people who destroy property here and steal our farm produce in large quantities. They have even gone so far, from time to time, as to remove it in trucks during the night.

We have over 600 patients housed in five stucco buildings which are not fireproof, and constitute a menace to the safety of the hospital. These buildings have wooden floors, wooden stairways, an obsolete system of electric wiring, and cannot be equipped with effective means of fire protection. Shortly after the disastrous Scobey Hospital fire, the Fire Commissioner of the City of Boston recommended that "All the old buildings, wooden and stucco, should be demolished and buildings of 1st class fireproof construction be erected in their stead."

One hundred and thirty-one employees are housed in the ward buildings, in the immediate proximity of patients, many of a noisy and violent type. Eighty-six of these employees are living in attics, some of which are unfinished in part and are not suitable for occupancy. They are, furthermore, living under conditions which would be highly undesirable, if not actually dangerous, in the event of fire. Buildings for the accommodation of these people should be provided for.

As a result of conditions representing various stages in the development of this institution, the power plant in the East Group furnishes the hospital with both direct and alternating current. Practically the entire East Group is furnished with direct current, and the West Group with alternating. The result is that we have to run two generators in the day time and two in the night, whereas one would otherwise be sufficient. Great economies could be effected by the erection of a new and modern type of power plant.

Attention should be called to the fact that this hospital has no centrally located assembly hall large enough to provide for the needs of the whole hospital and

furnish our patients with proper facilities for religious services, moving picture shows, entertainments, etc.

The hospital has never had a laboratory building. It has had no building for industrial or occupational therapy, no suitable or adequate quarters for employees, no separate accommodations for the care of tuberculous cases, and no reception building for the admission of new patients. To comply with the laws of the Commonwealth we need a paint shop in a separate building. We also need a new and larger greenhouse and a garage large enough to accommodate the cars and trucks belonging to the State, as well as to some of our medical officers and employees. Cottages should be erected for the steward, chief engineer, head farmer, various medical officers, etc.

In view of these facts, I would most respectfully suggest the advisability of starting upon some course of construction and development at this institution without any further loss of time. The procedure suggested is nothing more nor less than the completion of a program which should have been inaugurated and carried out many years ago. It is, of course, understood that this cannot all be done at once. For immediate consideration I would suggest the following:

*Reception Building, capacity about 125:*

The greatest need of the hospital at this time is a reception building. We now have facilities for the admission of 48 female patients in the G Building of the East Group — the most remote point from the center of our population. Male patients are admitted to the G Building in the West Group. This is the only building which we have for the housing of noisy, violent and destructive patients and it is very undesirable to receive new cases in a building of that type. This is a highly objectionable arrangement, as the new admissions should be taken care of in a separate building and provision made in such construction for the care of both male and female patients. It is recommended that a reception building be erected at a central location in the institution grounds, on the corner of Harvard and Morton Streets, at a place convenient to the Blue Hill Avenue trolley line.

This building is intended to furnish modern hospital facilities for the exhaustive examination, thorough observation, careful classification, and scientific treatment of all cases admitted. Administrative efficiency and economic considerations, as well as the desirability of systematic clinical researches, strongly suggest the advisability of the centralization of these facilities in one building. The wisdom of extending the advantages of this intensive study and treatment to as large a number of newly admitted patients as possible would seem to be fairly obvious. Certainly these opportunities should be offered to all who can be materially benefitted by them. It will, I think, be conceded that we should return to the community as many patients as we can without any contact with the purely custodial cases destined to have a permanent residence in the so-called "continued treatment" groups. The superior advantages and opportunities for study and treatment available in the reception building should be extended to the maximum number of those who may possibly profit from a brief period of observation. The fact that 34.59 per cent of our admissions have been discharged after a period of less than six months, and 43.6 per cent after a stay of less than one year points very strongly to the wisdom of such a policy. A careful analysis of the new admissions, day by day, during the eighteen months ending September 30, 1928, shows that a building which would have made it possible to give all cases six months supervision would necessarily have a capacity of at least two hundred, that number being less than the maximum in residence at any time during that period.

*Cottages for Physicians:*

The necessity of additional quarters for the medical staff at this hospital is very urgent. At the present time we have a vacancy for one assistant physician. We can furnish accommodations for such an appointee only by putting him in the same room with the last doctor who came here or by assigning him to quarters in the nurses' home — neither of which arrangements would be desirable. We have several members of the staff whose families include infant children. In view of these facts, I would strongly urge that provisions be made at once for at least two cottages

of not less than six rooms each. Cottages that would serve this purpose would require an appropriation of not less than \$8,000 each.

Respectfully submitted,  
JAMES V. MAY,  
*Superintendent.*

### VALUATION

REAL ESTATE	
Land, 236.517 acres . . . . .	\$709,508.00
Buildings . . . . .	2,783,803.95
	<hr/>
	\$3,493,311.95
PERSONAL PROPERTY	
Travel, transportation and office expenses . . . . .	\$850.00
Food . . . . .	25,673.44
Clothing and materials . . . . .	26,179.53
Furnishings and household supplies . . . . .	264,322.97
Medical and general care . . . . .	7,640.75
Heat, light and power . . . . .	10,245.73
Farm . . . . .	12,907.01
Garage, stables and grounds . . . . .	5,617.36
Repairs. . . . .	7,895.25
	<hr/>
	\$361,332.04
SUMMARY	
Real estate . . . . .	\$3,493,311.95
Personal property . . . . .	361,332.04
	<hr/>
	\$3,854,643.99

### FINANCIAL REPORT

*To the Department of Mental Diseases:*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1930.

#### CASH ACCOUNT *Receipts*

<i>Income</i>	
BOARD OF PATIENTS:	
Reimbursing . . . . .	\$103,671.25
	<hr/>
	\$103,671.25
Personal services:	
Reimbursement from Board of Retirement . . . . .	270.89
Sales:	
Travel, transportation and office expenses. . . . .	\$156.09
Food . . . . .	125.23
Clothing and materials . . . . .	9.53
Furnishings and household supplies . . . . .	44.07
Farm:	
Old Iron . . . . .	30.12
Repairs, ordinary . . . . .	123.48
	<hr/>
Total Sales . . . . .	\$488.52
Miscellaneous:	
Interest on bank balances . . . . .	\$638.49
Rent . . . . .	18.93
	<hr/>
	657.42
Total Income . . . . .	<hr/>
	\$105,088.08

#### MAINTENANCE

Balance from previous year, brought forward . . . . .	\$27,689.69
Appropriations, current year . . . . .	856,580.00
	<hr/>
Total . . . . .	\$884,269.69
Expenses (as analyzed below) . . . . .	849,541.48
	<hr/>
Balance reverting to Treasury of Commonwealth . . . . .	\$34,728.21

#### *Analysis of Expenses*

Personal services . . . . .	\$421,930.05
Religious instruction . . . . .	2,079.99
Travel, transportation and office expenses . . . . .	7,940.47
Food . . . . .	199,428.00
Clothing and materials . . . . .	30,016.66
Furnishings and household supplies . . . . .	43,746.45
Medical and general care . . . . .	30,509.01
Heat, light and power . . . . .	69,475.29
Farm . . . . .	6,439.97
Garage, stable and grounds . . . . .	5,597.94
Repairs ordinary . . . . .	20,674.03
Repairs and renewals . . . . .	11,703.62
	<hr/>
Total expenses for Maintenance . . . . .	\$849,541.48

SPECIAL APPROPRIATIONS			
Balance December 1, 1929			\$158,603.88
Appropriations for current year			185,400.00
Total			\$344,003.88
Expended during the year (see statement below)		\$203,919.53	
Reverting to Treasury of Commonwealth			203,919.53
Balance November 30, 1930, carried to next year			\$140,084.35

OBJECT	Act or Resolve	Whole Amount	Expended During Fiscal Year	Total Expended to Date	Balance at End of Year
Administration Building	1928-127 1930-115	\$180,000.00	\$105,411.93	\$151,380.58	\$28,619.42
Sewer and water extension	1928-127 1930-426	13,000.00	11,482.17	11,482.17	1,517.83
Renewing of steam lines	1929-146 1930-115	67,400.00	25,562.06	53,989.53	13,410.47
Employees' building, green house, etc.	1930-115	158,000.00	61,463.37	61,463.37	96,536.63
		\$418,400.00	\$203,919.53	\$278,315.65	\$140,084.35

Balance reverting to Treasury of the Commonwealth during year (mark item with *)	-
Balance carried to next year	\$140,084.35
Total as above	\$140,084.35

## PER CAPITA

During the year the average number of inmates has been 2,269.47.

Total cost of maintenance, \$849,541.48.

Equal to a weekly per capita cost of \$7.1987.

Receipt from sales, \$488.52.

Equal to a weekly per capita of \$.004139.

All other institution receipts, \$104,599.56.

Equal to a weekly per capita of \$.88634.

Net weekly per capita, \$6.3082.

Respectfully submitted,  
ADELINE J. LEARY,  
Treasurer

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION  
PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. General Information

Data correct at end of hospital year November 30, 1930

1. Date of opening as a hospital for mental diseases, Dec. 11 1839.								
2. Type of hospital: State since December 1, 1908.								
3. Hospital plant:								
Value of hospital property:								
Real estate, including buildings.								\$3,493,311.95
Personal property.								361,332.04
Total								\$3,854,643.99
Total acreage of hospital property owned, 236.51 acres.								
Total acreage under cultivation during previous year, 138 acres.								
4. Officers and employees:								
	Actually in Service at End of Year			Vacancies at End of Year				
	M.	F.	T.	M.	F.	T.		
Superintendents	1	-	1	-	-	-		
Assistant Superintendent	1	-	1	-	-	-		
Assistant physicians	5	4½	9½	2	½	2½		
Senior physician (Pathologist)	-	1	1	-	-	-		
Total physicians	7	5½	12½	2	½	2½		
Stewards	1	-	1	-	-	-		
Resident dentists	1	-	1	-	-	-		
Pharmacists	-	-	-	1	-	1		
Graduate nurses	-	15	15	3	2	5		
Other nurses and attendants	117	130	247	-	-	-		
Occupational therapists	-	10	10	1	-	1		
Social workers	-	4	4	-	-	-		
All other officers and employees	89	87	176	1½	-	1½		
Total officers and employees	215	251½	466½	5½	2½	8		

NOTE:— The following items, 5-10 inclusive, are for the year ending September 30, 1930.

5. Census of Patient Population at end of year:

	Actually in Hospital			Absent from Hospital but still on books		
	M.	F.	T.	M.	F.	T.
White:						
Insane . . . . .	921	1,223	2,144	82	116	198
Mental defectives . . . . .	5	8	13	—	—	—
All other cases . . . . .	27	11	38	5	4	9
Total . . . . .	953	1,242	2,195	87	120	207
Other Races:						
Insane . . . . .	25	36	61	1	2	3
All other cases . . . . .	3	1	4	—	1	1
Total . . . . .	28	37	65	1	3	4
Grand Total . . . . .	981	1,279	2,260	88	123	211
				Males	Females	Total
6. Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .				75	200	275
7. Other patients employed in general work of hospital on date of report . . . . .				560	434	994
8. Average daily number of all patients actually in hospital during year . . . . .				992.60	1,270.28	2,262.88

TABLE 2. *Financial Statement*

See Treasurer's report for data requested under this table.



NOTE:—The following tables 3—19 inclusive, are for the Statistical year ended September 30, 1930.

TABLE 3. *Movement of Patient Population*

	INSANE			SANE VOLUNTARY			TEMPORARY CARE			OBSERVATION			TOTAL ON BOOKS		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of Institution September 30, 1929 . . . . .	1,033	1,408	2,441	-	-	-	-	-	-	-	-	-	1,055	1,416	2,471
Admissions during year:															
First Admissions . . . . .	184	201	385	-	-	-	26	34	60	13	6	19	223	241	464
Readmissions . . . . .	46	50	96	-	-	-	10	12	22	24	20	44	80	82	162
Transfers from other hospitals for mental diseases . . . . .	14	16	30	-	-	-	-	-	-	-	-	-	14	16	30
Total received during year . . . . .	244	267	511	-	-	-	36	46	82	37	26	63	317	339	656
Total on books during year . . . . .	1,277	1,675	2,952	-	-	-	37	47	84	58	23	91	1,372	1,755	3,127
Discharged from books during year:															
As recovered . . . . .	24	54	78	-	-	-	4	-	4	5	4	9	33	58	91
As improved . . . . .	26	57	83	-	-	-	4	2	6	4	3	7	34	62	96
As unimproved . . . . .	6	13	19	-	-	-	22	19	41	7	1	8	35	33	68
As without psychosis . . . . .	-	1	1	-	-	-	4	16	20	21	17	38	25	34	59
Transferred to other hospitals for mental diseases . . . . .	62	43	105	-	-	-	-	-	-	1	-	1	63	43	106
Died during year . . . . .	106	111	217	-	-	-	3	10	13	4	2	6	113	123	236
Total discharged, transferred and died during year . . . . .	224	279	503	-	-	-	37	47	84	42	27	69	303	353	656
Insane patients remaining on books of hospital at end of hospital year:															
In hospital . . . . .	966	1,273	2,239	-	-	-	-	-	-	15	6	21	981	1,279	2,260
On parole or otherwise absent . . . . .	87	123	210	-	-	-	-	-	-	1	-	1	88	123	211
Total . . . . .	1,053	1,396	2,449	-	-	-	-	-	-	16	6	22	1,069	1,402	2,471

TABLE 4. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States. . . . .	107	109	216	33	32	25	39	41	34
Austria . . . . .	—	1	1	—	—	—	3	2	2
Canada <sup>1</sup> . . . . .	11	24	35	12	15	11	17	22	11
China . . . . .	1	—	1	1	1	1	—	—	—
England . . . . .	4	5	9	8	5	3	8	9	5
Finland . . . . .	—	—	—	1	—	—	—	—	—
France . . . . .	—	1	1	—	—	—	3	2	1
Germany . . . . .	—	1	1	6	5	5	4	2	2
Greece . . . . .	2	—	2	2	2	2	—	—	—
Holland . . . . .	—	1	1	—	—	—	1	1	1
Hungary . . . . .	1	—	1	1	1	1	—	—	—
Ireland . . . . .	23	36	59	47	48	41	76	73	66
Italy . . . . .	9	8	17	13	13	13	11	11	11
Norway . . . . .	1	—	1	—	—	—	—	—	—
Poland . . . . .	3	—	3	6	5	5	3	3	3
Roumania . . . . .	1	—	1	1	1	1	—	—	—
Russia . . . . .	7	7	14	14	14	14	10	12	10
Scotland . . . . .	1	3	4	3	3	2	11	6	4
Sweden . . . . .	5	—	5	7	7	7	2	1	1
West Indies <sup>2</sup> . . . . .	2	1	3	4	4	4	1	—	—
Other countries . . . . .	5	3	8	7	7	7	4	4	4
Unascertained . . . . .	1	1	2	18	21	18	8	12	8
Total . . . . .	184	201	385	184	184	160	201	201	163

<sup>1</sup>Includes Newfoundland.<sup>2</sup>Except Cuba and Porto Rico.

TABLE 4-A. *Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born.*

AGE GROUPS	Aggregate	NATIVE BORN						FOREIGN BORN						Nativity unascertained				
		Total			PERCENTAGE			Total			TIME IN U. S. BEFORE ADMISSION							
		M.	F.	T.	Native	Foreign	Mixed	Unascertained	M.	F.	T.	5-9 years	10-14 years		15 years and over			
Under 15 years.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
15-19 years.	7	7	14	—	1	1	1	—	—	—	—	—	—	—	—	—	1	1
20-24 years.	15	13	28	3	3	6	4	7	3	10	—	2	2	2	—	—	—	—
25-29 years.	16	6	22	3	1	4	5	2	7	8	15	—	—	—	—	—	—	—
30-34 years.	9	7	16	3	3	6	2	2	4	10	3	13	2	2	4	—	1	—
35-39 years.	8	16	24	1	1	2	2	7	1	1	1	2	3	5	—	—	2	3
40-44 years.	15	21	36	1	1	2	3	5	2	3	5	—	2	3	11	—	5	6
45-49 years.	16	10	26	1	6	7	3	4	7	3	4	7	2	2	2	—	9	11
50-54 years.	9	16	25	2	3	5	2	3	5	2	3	3	2	2	2	—	14	2
55-59 years.	22	20	42	5	2	7	4	5	9	1	2	3	2	5	7	—	4	7
60-64 years.	15	20	35	2	3	5	2	6	8	1	2	4	—	—	—	11	11	22
65-69 years.	18	19	37	6	9	15	2	3	5	2	1	—	—	—	—	9	10	19
70 years and over	34	46	80	18	19	37	6	10	16	1	5	4	3	1	4	—	6	13
Unascertained.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16	27	43
Total.	184	201	385	107	109	216	25	34	59	50	46	96	20	26	46	77	92	169
																—	—	—
																76	91	167
																1	1	2

TABLE 5. *Citizenship of First Admissions*

	Males	Females	Total
Citizens by birth . . . . .	107	109	216
Citizens by naturalization . . . . .	45	41	86
Aliens . . . . .	26	36	62
Citizenship unascertained . . . . .	6	15	21
Total . . . . .	184	201	385

TABLE 6. *Psychoses of First Admissions*

PSYCHOSES	M. F. T.			M. F. T.		
	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses . . . . .				2	-	2
2. Senile psychoses . . . . .				9	36	45
3. Psychoses with cerebral arteriosclerosis . . . . .				56	47	103
4. General paralysis . . . . .				19	6	25
5. Psychoses with cerebral syphilis . . . . .				1	-	1
6. Psychoses with Huntington's chorea . . . . .				-	-	-
7. Psychoses with brain tumor . . . . .				-	1	1
8. Psychoses with other brain or nervous diseases, total . . . . .				3	6	9
Other diseases . . . . .	3	6	9	-	-	-
9. Alcoholic psychoses, total . . . . .				12	6	18
Korsakow's psychosis . . . . .	2	2	4	-	-	-
Acute hallucinosis . . . . .	5	-	5	-	-	-
Other types, acute or chronic . . . . .	5	4	9	-	-	-
10. Psychoses due to drugs and other exogenous toxins, total . . . . .				-	2	2
Other exogenous toxins . . . . .	-	2	2	-	-	-
11. Psychoses with pellagra . . . . .				-	-	-
12. Psychoses with other somatic diseases, total . . . . .				4	7	11
Delirium of unknown origin . . . . .	-	2	2	-	-	-
Cardio-renal diseases . . . . .	3	3	6	-	-	-
Other diseases or conditions . . . . .	1	2	3	-	-	-
13. Manic-depressive psychoses, total . . . . .				25	37	62
Manic type . . . . .	7	8	15	-	-	-
Depressive type . . . . .	17	24	41	-	-	-
Other types . . . . .	1	5	6	-	-	-
14. Involution melancholia . . . . .				2	5	7
15. Dementia praecox (schizophrenia) . . . . .				12	4	16
16. Paranoia and paranoid conditions . . . . .				5	18	23
17. Epileptic psychoses . . . . .				1	2	3
18. Psychoneuroses and neuroses, total . . . . .				3	4	7
Psychasthenic type (anxiety and obsessive forms) . . . . .	-	1	1	-	-	-
Neurasthenic type . . . . .	3	3	6	-	-	-
19. Psychoses with psychopathic personality . . . . .				-	2	2
20. Psychoses with mental deficiency . . . . .				5	9	14
21. Undiagnosed psychoses . . . . .				24	8	32
22. Without psychoses, total . . . . .				1	1	2
Mental deficiency, without psychosis . . . . .	1	1	2	-	-	-
Total . . . . .				184	201	385

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			Traumatic	Senile			With cerebral arterio-sclerosis			General paralysis			With cerebral syphilis			With brain tumor		
	M.	F.	T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.							
African (blk)	13	12	25	- - -	- 4 4	4 - 4	5 1 6	- - -	- - -	- - -	- - -	- - -							
Armenian.	2	-	2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -							
Chinese	1	-	1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -							
Dutch and Flemish	-	1	1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -							
English	2	9	11	- - -	1 1 2	- 2 2	- 1 1	- - -	- - -	- - -	- - -	- - -							
Finnish	1	-	1	- - -	- - -	1 - 1	- - -	- - -	- - -	- - -	- - -	- - -							
German	5	3	8	- - -	- - -	2 2 4	- - -	- - -	- - -	- - -	- - -	- - -							
Greek	1	-	1	- - -	- 1 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -							
Hebrew	17	16	33	- - -	- 1 3	4 - 4	- - -	- - -	- - -	- - -	- - -	- - -							
Irish	44	74	118	- - -	4 10 14	15 20 35	2 1 3	- - -	- - -	- - -	- - -	- - -							
Italian <sup>1</sup>	13	11	24	- - -	1 2 3	- 3 3	4 - 4	- - -	- - -	- - -	- - -	- - -							
Lithuanian	3	-	3	1 - 1	- - -	- - -	1 - 1	- - -	- - -	- - -	- - -	- - -							
Magyar	1	-	1	- - -	- - -	1 - 1	- - -	- - -	- - -	- - -	- - -	- - -							
Scandinavian <sup>2</sup>	8	1	9	1 - 1	- - -	3 - 3	1 - 1	- - -	- - -	- - -	- - -	- - -							
Scotch	2	6	8	- - -	- 4 4	2 - 2	- - -	- - -	- - -	- - -	- - -	- - -							
Slavonic <sup>3</sup>	4	1	5	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -							
Syrian	1	2	3	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -							
Other specific races	2	-	2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -							
Mixed	61	64	125	- - -	3 14 17	25 17 42	5 3 8	1 - 1	- 1 1	- - -	- - -	- - -							
Race unascertained	3	1	4	- - -	- - -	2 - 2	- - -	- - -	- - -	- - -	- - -	- - -							
Total	184	201	385	2 - 2	9 36 45	56 47 103	19 6 25	1 - 1	- 1 1	- - -	- - -	- - -							

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued.*

RACE	With other brain or nervous diseases			Alcoholic			Due to drugs and other exogenous toxins			With other somatic diseases			Manic-depressive			Involution melancholia			Dementia praecox		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	2	2	-	-	-	-	-	-	-	-	-	1	2	3	-	-	-	-	-	-
Armenian	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Chinese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
English	-	-	-	-	1	1	-	-	-	-	2	2	-	1	1	-	-	-	-	-	-
Finnish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German	-	-	-	1	-	1	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-
Greek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew	1	-	1	-	-	-	-	-	-	1	-	1	3	5	8	1	1	2	4	1	5
Irish	-	1	1	8	3	11	-	1	1	1	4	5	5	13	18	-	2	2	2	2	4
Italian <sup>1</sup>	1	-	1	1	-	1	-	-	-	-	-	-	-	3	3	-	-	-	-	-	-
Lithuanian	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Magyar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-
Scotch	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-
Slavonic <sup>3</sup>	-	-	-	1	-	1	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-
Syrian	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	1
Other specific races	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Mixed	-	3	3	1	1	2	-	1	1	1	1	2	10	7	17	1	2	3	5	1	6
Race unascertained	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	3	6	9	12	6	18	-	2	2	4	7	11	25	37	62	2	5	7	12	4	16

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Norwegians, Danes, and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Paranoia and paranoid conditions			Epileptic psychoses			Psycho-neuroses and neuroses			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	1	1	—	1	1	1	—	1	—	—	—	—	1	1	2	—	2	—	—	—
Armenian	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Dutch and Flemish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	1	—	1	—	—	—
Finnish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	1	1	1	—	1	1	1	1	—	—	—	1	1	—	4	2	6	1	—	1
Irish	—	11	11	—	1	1	1	1	2	—	—	—	1	2	3	5	2	7	—	—	—
Italian <sup>1</sup>	1	—	1	—	—	—	—	—	—	—	—	—	3	1	4	2	1	3	—	1	1
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Magyar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	2	5	7	—	—	—	1	1	2	—	2	2	1	3	4	5	2	7	—	—	—
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Total	5	18	23	1	2	3	3	4	7	—	2	2	5	9	14	24	8	32	1	1	2

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish Russian, Ruthenian, Servian, Slovak, Slovenian.TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			15-19 years			20-24 years			25-29 years			30-34 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile	9	36	45	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	56	47	103	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis	19	6	25	—	—	—	—	—	—	—	—	—	1	—	1
5. With cerebral syphilis	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	3	6	9	—	—	—	—	1	1	—	—	—	—	1	1
9. Alcoholic	12	6	18	—	—	—	—	—	—	—	—	—	2	—	2
10. Due to drugs and other exogenous toxins	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	4	7	11	—	—	—	—	—	—	—	—	—	—	2	2
13. Manic-depressive	25	37	62	1	4	5	6	8	14	2	3	5	1	1	2
14. Involution melancholia	2	5	7	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox	12	4	16	1	—	1	3	2	5	8	—	8	—	—	—
16. Paranoia and paranoid conditions	5	18	23	—	—	—	—	—	—	—	—	—	1	—	1
17. Epileptic psychoses	1	2	3	—	—	—	—	—	—	1	—	1	—	—	—
18. Psychoneuroses and neuroses	3	4	7	—	—	—	1	1	2	1	1	2	—	1	1
19. With psychopathic personality	—	2	2	—	—	—	—	—	—	—	1	1	—	—	—
20. With mental deficiency	5	9	14	2	3	5	1	—	1	1	—	1	—	—	—
21. Undiagnosed psychoses	24	8	32	3	—	3	3	1	4	3	1	4	4	2	6
22. Without psychosis	1	1	2	—	—	—	1	—	1	—	—	—	—	—	—
Total	184	201	385	7	7	14	15	13	28	16	6	22	9	7	16

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued*

PSYCHOSES	35-39 years			40-44 years			45-49 years			50-54 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	1	-	1	1	-	1	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	1	1	-	1	1	1	2	3
4. General paralysis . . . . .	1	3	4	1	-	1	4	2	6	4	-	4
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	1	1	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	1	-	1	-	2	2	1	-	1	-	1	1
9. Alcoholic . . . . .	2	-	2	1	1	2	2	2	4	1	-	1
10. Due to drugs and other exogenous toxins . . . . .	-	1	1	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	-	-	-	1	1	-	-	-	-	1	1
13. Manic-depressive . . . . .	2	4	6	6	5	11	5	3	8	1	4	5
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	1	1	-	2	2
15. Dementia praecox . . . . .	-	1	1	-	-	-	-	-	-	-	1	1
16. Paranoia and paranoid conditions . . . . .	1	2	3	1	6	7	-	1	1	1	3	4
17. Epileptic psychoses . . . . .	-	1	1	-	1	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	1	1	1	-	1	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	1	1	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	1	1	1	1	2	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	1	1	2	3	1	4	3	-	3	1	2	3
22. Without psychosis . . . . .	-	-	-	-	1	1	-	-	-	-	-	-
Total . . . . .	8	16	24	15	21	36	16	10	26	9	16	25

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	55-59 years			60-64 years			65-69 years			70 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	1	1	3	3	6	1	4	5	5	28	33
3. With cerebral arteriosclerosis . . . . .	9	6	15	7	10	17	12	11	23	27	16	43
4. General paralysis . . . . .	3	1	4	-	-	-	3	-	3	2	-	2
5. With cerebral syphilis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	1	-	1	-	1	1
9. Alcoholic . . . . .	2	-	2	1	2	3	1	1	2	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	1	1	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	1	-	1	3	1	4	-	1	1	-	1	1
13. Manic-depressive . . . . .	1	2	3	-	3	3	-	-	-	-	-	-
14. Involution melancholia . . . . .	2	2	4	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	1	5	6	-	-	-	-	1	1	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	2	2	-	1	1	-	1	1	-	-	-
21. Undiagnosed psychoses . . . . .	2	-	2	1	-	1	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	22	20	42	15	20	35	18	19	37	34	46	80

TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	Total			Illiterate			Reads and writes <sup>1</sup>			Common school			High school			College	Unascertained
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.		
1. Traumatic . . . . .	2	—	2	—	5	5	—	1	—	2	—	2	—	4	6	—	—
2. Senile . . . . .	6	36	45	—	5	5	—	1	8	9	—	2	—	4	6	—	—
3. With cerebral arteriosclerosis . . . . .	56	47	103	—	5	3	8	5	12	17	34	25	6	5	11	1	—
4. General paralysis . . . . .	19	6	25	—	3	3	—	1	—	1	13	6	1	—	—	—	—
5. With cerebral syphilis . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	6	6	—	2	2	—	1	1	2	—	5	—	1	1	—	—
9. Alcoholic . . . . .	12	6	18	—	—	—	—	1	1	2	10	3	1	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	2	—	—	—	—	—	—	—	—	1	—	—	—	—	—
11. With pellagra . . . . .	4	7	11	—	—	—	—	—	—	—	—	6	—	—	—	—	—
12. With other somatic diseases . . . . .	25	37	62	—	—	—	—	1	1	2	12	27	39	10	7	17	—
13. Manic-depressive . . . . .	2	5	7	—	—	—	—	1	1	1	2	3	5	—	1	1	—
14. Involution melancholia . . . . .	12	4	16	—	—	—	—	—	—	—	4	2	6	6	2	1	—
15. Dementia praecox . . . . .	5	18	23	—	1	1	—	1	3	4	3	13	16	1	1	2	—
16. Paranota and paranoid conditions . . . . .	1	12	13	—	—	—	—	—	—	—	2	2	2	—	—	—	—
17. Epileptic psychoses . . . . .	3	4	7	—	—	—	—	—	—	—	2	2	4	1	2	3	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	5	9	14	—	3	3	—	2	1	3	—	2	2	—	—	—	—
20. With mental deficiency . . . . .	24	8	32	—	—	—	—	—	—	—	3	4	7	—	—	—	—
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	16	8	24	6	—	1	—
22. Without psychosis . . . . .	1	1	2	—	—	—	—	1	—	1	—	1	—	—	—	—	—
Total . . . . .	184	201	385	10	12	22	17	28	45	110	125	235	34	25	59	5	2
																7	8

Includes those who did not complete fourth grade in school.



TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Urban		
	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	2	—	2
2. Senile . . . . .	9	36	45	9	36	45
3. With cerebral arteriosclerosis . . . . .	56	47	103	56	47	103
4. General paralysis . . . . .	19	6	25	19	6	25
5. With cerebral syphilis . . . . .	1	—	1	1	—	1
6. With Huntington's chorea . . . . .	—	—	—	—	—	—
7. With brain tumor . . . . .	—	1	1	—	1	1
8. With other brain or nervous diseases . . . . .	3	6	9	3	6	9
9. Alcoholic . . . . .	12	6	18	12	6	18
10. Due to drugs and other exogenous toxins . . . . .	—	2	2	—	2	2
11. With pellagra . . . . .	—	—	—	—	—	—
12. With other somatic diseases . . . . .	4	7	11	4	7	11
13. Manic-depressive . . . . .	25	37	62	25	37	62
14. Involution melancholia . . . . .	2	5	7	2	5	7
15. Dementia praecox . . . . .	12	4	16	12	4	16
16. Paranoia and paranoid conditions . . . . .	5	18	23	5	18	23
17. Epileptic psychoses . . . . .	1	2	3	1	2	3
18. Psychoneuroses and neuroses . . . . .	3	4	7	3	4	7
19. With psychopathic personality . . . . .	—	2	2	—	2	2
20. With mental deficiency . . . . .	5	9	14	5	9	14
21. Undiagnosed psychoses . . . . .	24	8	32	24	8	32
22. Without psychosis . . . . .	1	1	2	1	1	2
Total . . . . .	184	201	385	184	201	385

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Dependent			Marginal			Com- fortable			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	1	—	1	1	—	1	—	—	—	—	—	—
2. Senile . . . . .	9	36	45	1	6	7	8	27	35	—	—	—	—	3	3
3. With cerebral arterio- sclerosis . . . . .	56	47	113	7	11	18	46	35	81	1	1	2	2	—	2
4. General paralysis . . . . .	19	6	25	1	—	1	18	6	24	—	—	—	—	—	—
5. With cerebral syphilis . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	1	1	—	—	—	—	—	—	—	1	1	—	—	—
8. With other brain or nerv- ous diseases . . . . .	3	6	9	—	2	2	3	4	7	—	—	—	—	—	—
9. Alcoholic . . . . .	12	6	18	—	—	—	12	5	17	—	—	—	—	1	1
10. Due to drugs and other ex- ogenous toxins . . . . .	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	4	7	11	1	—	1	3	7	10	—	—	—	—	—	—
13. Manic-depressive . . . . .	25	37	62	2	5	7	21	30	51	1	2	3	1	—	1
14. Involution melancholia . . . . .	2	5	7	—	—	—	2	5	7	—	—	—	—	—	—
15. Dementia praecox . . . . .	12	4	16	1	2	3	11	2	13	—	—	—	—	—	—
16. Paranoia and paranoid con- ditions . . . . .	5	18	23	—	6	6	5	12	17	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	1	2	3	—	1	1	1	1	2	—	—	—	—	—	—
18. Psychoneuroses and neu- roses . . . . .	3	4	7	—	1	1	3	3	6	—	—	—	—	—	—
19. With psychopathic person- ality . . . . .	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	5	9	14	3	4	7	2	4	6	—	—	—	—	1	1
21. Undiagnosed psychoses . . . . .	24	8	32	2	4	6	20	4	24	—	—	—	2	—	2
22. Without psychosis . . . . .	1	1	2	1	—	1	—	1	1	—	—	—	—	—	—
Total . . . . .	184	201	385	20	44	64	157	148	305	2	4	6	5	5	10

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	—	—	—	1	—	1	1	—	1	—	—	—
2. Senile . . . . .	9	36	45	2	27	29	3	2	5	2	1	3	2	6	8
3. With cerebral arterio-sclerosis . . . . .	56	47	103	14	36	50	21	9	30	17	2	19	4	—	4
4. General paralysis . . . . .	19	6	25	6	1	7	8	3	11	3	2	5	2	—	2
5. With cerebral syphilis . . . . .	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	3	6	9	—	1	1	2	4	6	1	1	2	—	—	—
9. Alcoholic . . . . .	12	6	18	—	—	—	—	—	—	12	6	18	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	2	2	—	1	1	—	1	1	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	4	7	11	1	4	5	1	2	3	2	1	3	—	—	—
13. Manic-depressive . . . . .	25	37	62	10	19	29	10	18	28	4	—	4	1	—	1
14. Involution melancholia . . . . .	2	5	7	1	2	3	1	3	4	—	—	—	—	—	—
15. Dementia praecox . . . . .	12	4	16	9	2	11	2	2	4	1	—	1	—	—	—
16. Paranoia and paranoid conditions . . . . .	5	18	23	1	11	12	3	5	8	1	2	3	—	—	—
17. Epileptic psychoses . . . . .	1	2	3	1	—	1	—	1	1	—	1	1	—	—	—
18. Psychoneuroses and neuroses . . . . .	3	4	7	1	1	2	1	3	4	1	—	1	—	—	—
19. With psychopathic personality . . . . .	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—
20. With mental deficiency . . . . .	5	9	14	2	6	8	3	1	4	—	2	2	—	—	—
21. Undiagnosed psychoses . . . . .	24	8	32	8	4	12	8	2	10	7	2	9	1	—	1
22. Without psychosis . . . . .	1	1	2	1	1	2	—	—	—	—	—	—	—	—	—
Total . . . . .	184	201	385	57	117	174	64	58	122	53	20	73	10	6	16

TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES																								
Total						Single			Married			Widowed		Separated		Divorced								
M.		F.		T.		M.		F.		T.		M.		F.		M.		F.		T.				
1. Traumatic	2	36	2	45	2	2	1	10	11	4	2	6	4	24	28	—	—	—	—	—	—			
2. Senile	9	56	47	103	13	10	23	6	1	7	10	4	14	1	—	—	—	—	—	—	—			
3. With cerebral arteriosclerosis	19	6	25	25	6	1	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
4. General paralysis	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
5. With cerebral syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
7. With brain tumor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
8. With other brain or nervous diseases	3	6	9	2	4	1	6	7	3	10	—	—	—	—	—	—	—	—	—	—	—			
9. Alcoholic	12	6	18	5	1	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
10. Due to drugs and other exogenous toxins	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
12. With other somatic diseases	4	7	11	2	2	2	3	5	14	3	2	4	—	—	—	—	—	—	—	—	—			
13. Manic-depressive	25	37	62	18	19	37	5	19	1	3	2	4	—	—	—	—	—	—	—	—	—			
14. Involution melancholia	7	5	12	2	2	2	1	3	2	1	2	—	—	—	—	—	—	—	—	—	—			
15. Dementia praecox	12	4	16	11	3	14	1	1	7	10	—	—	—	—	—	—	—	—	—	—	—			
16. Paranoia and paranoid conditions	5	18	23	1	6	7	3	1	1	1	2	2	2	2	2	1	2	3	—	—	—			
17. Epileptic psychoses	1	2	3	1	1	2	5	1	1	1	—	—	—	—	—	—	—	—	—	—	—			
18. Psychoneuroses and neuroses	3	4	7	3	2	2	2	2	2	2	—	—	—	—	—	—	—	—	—	—	—			
19. With psychopathic personality	—	2	2	2	2	2	2	2	2	2	—	—	—	—	—	—	—	—	—	—	—			
20. With mental deficiency	5	9	14	5	4	9	—	4	4	—	—	—	—	—	—	—	—	—	—	—	—			
21. Undiagnosed psychoses	24	8	32	14	3	17	9	2	11	—	—	—	—	—	—	—	—	—	—	—	—			
22. Without psychosis	1	1	2	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Total	184	201	385	81	68	149	74	59	133	23	63	86	2	6	8	4	5	9						

TABLE 14. *Psychoses of Readmissions.*

PSYCHOSES	Males	Females	Totals
1. Traumatic psychoses . . . . .	—	—	—
2. Senile psychoses . . . . .	2	5	7
3. Psychoses with cerebral arteriosclerosis . . . . .	2	2	4
4. General paralysis . . . . .	3	—	3
5. Psychoses with cerebral syphilis . . . . .	—	—	—
6. Psychoses with Huntington's chorea . . . . .	—	—	—
7. Psychoses with brain tumor . . . . .	—	—	—
8. Psychoses with other brain or nervous diseases . . . . .	—	1	1
9. Alcoholic psychoses . . . . .	4	2	6
10. Psychoses due to drugs and other exogenous toxins . . . . .	—	—	—
11. Psychoses with pellagra . . . . .	—	—	—
12. Psychoses with other somatic diseases . . . . .	1	—	1
13. Manic-depressive psychoses . . . . .	18	25	43
14. Involution melancholia . . . . .	—	—	—
15. Dementia praecox . . . . .	4	6	10
16. Paranoia and paranoid conditions . . . . .	—	4	4
17. Epileptic psychoses . . . . .	1	—	1
18. Psychoneuroses and neuroses . . . . .	—	—	—
19. Psychoses with psychopathic personality . . . . .	1	—	1
20. Psychoses with mental deficiency . . . . .	5	2	7
21. Undiagnosed psychoses . . . . .	5	3	8
22. Without psychosis . . . . .	—	—	—
Total . . . . .	46	50	96

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge.*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	1	8	9	—	—	—	1	6	7	—	2	2
3. With cerebral arteriosclerosis . . . . .	6	8	14	—	—	—	6	3	9	—	5	5
4. General paralysis . . . . .	4	—	4	—	—	—	2	—	2	2	—	2
5. With cerebral syphilis . . . . .	—	2	2	—	—	—	—	2	2	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	3	3	—	1	1	—	2	2	—	—	—
9. Alcoholic . . . . .	10	5	15	4	3	7	5	2	7	1	—	1
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	1	1	2	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	3	3	—	1	1	—	1	1	—	1	1
13. Manic-depressive . . . . .	18	59	77	15	42	57	3	17	20	—	—	—
14. Involution melancholia . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
15. Dementia praecox . . . . .	3	11	14	—	—	—	1	9	10	2	2	4
16. Paranoia and paranoid conditions . . . . .	6	13	19	2	—	2	3	10	13	1	3	4
17. Epileptic psychoses . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	—	1	—	—	—	1	—	1	—	—	—
19. With psychopathic personality . . . . .	1	—	1	1	—	1	—	—	—	—	—	—
20. With mental deficiency . . . . .	3	8	11	1	4	5	2	4	6	—	—	—
21. Undiagnosed psychoses . . . . .	2	1	3	—	1	1	2	—	2	—	—	—
22. Without psychosis . . . . .	—	1	1	—	—	—	—	—	—	—	—	—
Total . . . . .	56	125	181	24	54	78	26	57	83	6	13	19

CAUSES OF DEATH	Total			Senile			With cerebral arterio-sclerosis			General paralysis			Alcoholic			Manic-depressive		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious Diseases</i>																		
Tuberculosis of the respiratory system . . . . .	10	10	20	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Tuberculosis of other organs . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis (non-nervous forms) . . . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>General Diseases not Included in Class I</i>																		
Cancer and other malignant tumors. . . . .	2	7	9	—	4	4	—	—	—	—	—	—	—	—	—	—	—	—
Tumor (non-cancerous) . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Diabetes . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other general diseases . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Nervous System</i>																		
Meningitis (non-epidemic) . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral hemorrhage, apoplexy . . . . .	1	5	6	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
General paralysis of the insane . . . . .	13	2	15	—	—	—	—	—	—	—	—	13	2	15	—	—	—	—
Chorea . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of the nervous system . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Circulatory System</i>																		
Endocarditis and myocarditis . . . . .	12	28	40	1	11	12	—	—	—	—	—	—	—	—	—	3	2	5
Angina pectoris . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arteriosclerosis . . . . .	9	10	19	1	4	5	—	—	—	—	—	1	—	1	—	—	—	—
Other diseases of the circulatory system . . . . .	1	1	2	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Respiratory System</i>																		
Bronchitis . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Bronchopneumonia . . . . .	35	34	69	2	11	13	—	—	—	—	—	19	14	33	3	1	2	3
Lobar pneumonia . . . . .	7	2	9	—	—	—	—	—	—	—	—	2	—	2	—	—	—	—
Pleurisy . . . . .	2	—	2	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Digestive System</i>																		
Diseases of the pharynx and tonsils . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ulcer of stomach and duodenum . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Appendicitis and typhlitis . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of intestines . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of liver . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Non-Veneral Diseases of Genito-Urinary System and Anæra</i>																		
Nephritis . . . . .	4	1	5	—	—	—	—	—	—	—	—	2	—	2	—	—	—	—
Diseases of prostate . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
<i>Diseases of the Skin and of the Cellular Tissue</i>																		
Gangrene . . . . .	1	—	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Accidental traumatism . . . . .	1	2	3	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	106	111	217	7	35	42	40	29	69	18	3	21	6	4	10	7	3	10

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses — Concluded.

CAUSES OF DEATH	Involution melancholia		Dementia praecox		Paranoia and paranoid conditions		Epileptic psychoses		With psychopathic personality		With mental deficiency		All other psychoses			
	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.		
<i>Epidemic, Endemic and Infectious Diseases</i> Tuberculosis of the respiratory system Tuberculosis of other organs Syphilis (non-nervous forms) <i>General Diseases not Included in Class I</i> Cancer and other malignant tumors Tumor (non-cancerous) Diabetes Other general diseases <i>Diseases of the Nervous System</i> Meningitis (non-epidemic) Cerebral hemorrhage, apoplexy General paralysis of the insane Chorea Other diseases of the nervous system <i>Diseases of the Circulatory System</i> Endocarditis and myocarditis Angina pectoris Arteriosclerosis Other diseases of the circulatory system <i>Diseases of the Respiratory System</i> Bronchitis Bronchopneumonia Lobar pneumonia Pleurisy <i>Diseases of the Digestive System</i> Diseases of the pharynx and tonsils Ulcer of stomach and duodenum Appendicitis and typhlitis Other diseases of intestines Other diseases of liver <i>Non-Veneral Diseases of Genito-Urinary System and Anura</i> Nephritis Diseases of prostate <i>Diseases of the Skin and of the Cellular Tissue</i> Gangrene Accidental traumatism Total	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.		
	—	—	—	4	8	12	—	—	—	—	—	—	—	2	1	3
	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1
	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
	1	1	—	—	—	—	2	2	—	—	—	—	—	—	1	1
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—											

Includes group 22, "without psychosis."

TABLE 17. *Age of Patients at Time of Death Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			25-29 years			30-34 years			35-39 years			40-44 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	7	35	42	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	40	29	69	—	—	—	—	—	—	—	—	—	—	1	1
4. General paralysis . . . . .	18	3	21	—	—	—	1	1	—	1	1	—	1	—	1
5. With cerebral syphilis . . . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	1	1
8. With other brain or nervous diseases . . . . .	2	3	5	—	—	—	—	—	1	—	1	—	—	1	1
9. Alcoholic . . . . .	6	4	10	—	—	—	—	—	1	—	1	—	1	1	2
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	7	3	10	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive . . . . .	7	3	10	—	—	—	1	—	1	—	1	—	—	—	—
14. Involution melancholia . . . . .	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	10	16	26	2	—	2	—	2	2	1	1	2	—	—	—
16. Paranoia or paranoid conditions . . . . .	1	8	9	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	2	1	3	—	—	—	—	—	—	—	—	—	1	—	1
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	106	111	217	2	—	2	1	3	4	4	2	6	3	4	7

TABLE 17. *Age of Patients at Time of Death Classified with Reference to Principal Psychoses — Concluded.*

PSYCHOSES	45-49 years			50-54 years			55-59 years			60-64 years			65-69 years			70 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	1	3	4	—	3	3	6	29	35
3. With cerebral arteriosclerosis . . . . .	—	—	—	1	—	1	7	5	12	4	7	11	9	6	15	19	10	29
4. General paralysis . . . . .	1	—	1	6	—	6	3	1	4	4	—	4	—	—	—	3	—	3
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	1	—	1	—	—	—
9. Alcoholic . . . . .	—	1	1	—	1	1	1	—	1	1	1	2	2	—	2	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	—	—	—	1	1	2	—	2	3	—	3	1	1	2	1	1	2
13. Manic-depressive . . . . .	—	—	—	1	—	1	1	2	3	1	—	1	1	1	2	1	—	1
14. Involution melancholia . . . . .	—	1	1	—	—	—	1	—	1	—	2	2	—	—	—	—	—	—
15. Dementia praecox . . . . .	2	3	5	1	2	3	2	3	5	—	2	2	—	—	—	2	3	5
16. Paranoia or paranoid conditions . . . . .	—	1	1	1	—	1	—	—	—	—	4	4	—	1	1	—	2	2
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	1	—	1
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
20. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	1	—	1
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	3	7	10	10	5	15	20	13	33	14	20	34	15	12	27	34	45	79

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses.*

PSYCHOSES	Total			Less than 1 month		1-3 months		4-7 months		8-12 months		1-2 years		3-4 years	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	—	—	—	—	1	—	—	—	—	—	—	—
2. Senile . . . . .	7	35	42	—	4	—	7	7	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	40	29	69	10	7	17	9	4	13	1	3	4	1	2	2
4. General paralysis . . . . .	18	3	21	—	1	—	5	—	5	2	3	5	2	4	6
5. With cerebral syphilis . . . . .	2	—	2	—	—	—	—	—	—	4	4	1	3	2	2
6. With Huntington's chorea . . . . .	—	1	1	—	—	—	—	1	—	—	—	—	—	1	—
7. With brain tumor . . . . .	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	2	3	5	1	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	6	1	7	1	3	4*	—	—	—	—	—	—	1	1	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	7	3	10	—	1	1	3	2	5	—	1	1	3	—	—
13. Manic-depressive . . . . .	7	3	10	2	1	3	1	1	—	—	1	1	—	—	—
14. Involution melancholia . . . . .	1	3	4	—	—	—	1	—	—	—	—	—	2	—	—
15. Dementia præcox . . . . .	10	16	26	1	—	—	—	—	—	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	—	8	8	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	1	—	—
18. Psychoneuroses and neuroses . . . . .	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	106	111	217	16	17	33	18	16	34	8	8	16	15	6	12



TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses — Concluded.*

Psychoses	5-6 years			7-8 years			9-10 years			11-12 years			13-14 years			15-19 years			20 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	2	2	-	-	-	-	2	2	-	1	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	3	1	4	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive . . . . .	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	1	1	-	-	-	-	2	2	4	1	2	3	1	-	1	3	4	4	6	10
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	2	2	2	-	1	1
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	1
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	6	6	12	1	4	5	4	6	10	3	3	6	5	2	7	2	6	8	6	7	13

TABLE 19. *Family Care Department.*

	Males	Females	Totals
Remaining in Family Care September 30, 1929 . . . . .	—	7	7
On visit from Family Care September 30, 1929 . . . . .	—	—	—
Admitted during the year . . . . .	—	7	7
Whole number of cases within the year . . . . .	—	14	14
Dismissed within the year . . . . .	—	5	5
Returned to institution . . . . .	—	5	5
Discharged . . . . .	—	—	—
On visit . . . . .	—	—	—
Returned from visit . . . . .	—	—	—
Discharged from visit from Family Care . . . . .	—	—	—
Remaining in Family Care September 30, 1930 . . . . .	—	9	9
On visit from Family Care September 30, 1930 . . . . .	—	—	—
Number of different persons within the year . . . . .	—	14	14
Number of different persons admitted . . . . .	—	7	7
Number of different persons discharged . . . . .	—	5	5
Average daily number in Family Care during the year . . . . .	—	7.61	7.61
Supported by the State . . . . .	—	7.01	7.01
Private . . . . .	—	.34	.34
Self-supporting . . . . .	—	.26	.26
Average daily number on visit from Family Care during the year . . . . .	—	—	—

**The Commonwealth of Massachusetts**

**ANNUAL REPORT**

OF THE

**TRUSTEES**

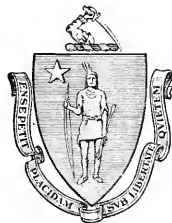
OF THE

**BOSTON STATE HOSPITAL**

FOR THE

YEAR ENDING NOVEMBER 30, 1931

THE NINETY-FIRST ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



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DEPARTMENT OF MENTAL DISEASES  
GARDNER STATE COLONY  
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## TRUSTEES' REPORT

*To His Excellency, the Governor, and the Honorable Council:*

The trustees of the Boston State Hospital have the honor to submit herewith their twenty-third annual report covering the year ended November 30, 1931.

The trustees have held their usual meetings and have maintained through their committees a monthly inspection of the hospital, which at all times has appeared to be in a satisfactory condition. The appended reports of the Superintendent and Treasurer describe in detail the operations of the year.

In February Mr. Leopold M. Goulston was appointed a member of the Board, succeeding Mr. J. Waldo Pond, whose term had expired.

## PATIENTS UNDER THE CARE OF THE TRUSTEES

The number of patients in the hospital has varied from 2,027 to 2,282, the average daily population being 2,155.97. In addition there were on the average 13.12 patients in private care and 180.93 on visit or escape.

## COST OF MAINTENANCE

The amount allowed for maintenance this year by the General Court was \$863,164.99, including \$21,684.99 brought over from the previous year. The allowance for personal service was not sufficient to fill all the positions to which the hospital was entitled under the rules of the Department based on the number of patients, but there has been no scarcity of applicants except for the position of assistant physician.

## ESTIMATES FOR MAINTENANCE

The following are the estimates of the amount needed for maintenance for the ensuing year on the established salary scales and the established per capita allowance for a population of 2,100:

Personal service . . . . .	\$470,813.00
Religious instruction . . . . .	2,080.00
Travel, transportation, etc. . . . .	7,605.00
Food . . . . .	175,500.00
Clothing and materials . . . . .	27,300.00
Heat, light and power . . . . .	80,520.00
Medical and general care . . . . .	19,296.00
Furnishings and household supplies . . . . .	37,050.00
Farm . . . . .	6,700.00
Garage, stable and grounds. . . . .	3,200.00
Repairs, ordinary . . . . .	18,525.00
Repairs and renewals . . . . .	8,000.00
Total . . . . .	<u>\$856,589.00</u>

## NEW CONSTRUCTION

In 1930 the General Court made provision for an extension of the steam lines, for the construction of a building to accommodate 80 women employees and an office for the East Group, for the construction of a small building for male employees on the foundations of an old barn, for the removal of a portion of the old administration building and its transformation into a residence for members of the staff, and the tearing down of the remainder of the building, and for the construction of a greenhouse. All of this work has been completed except the building of the greenhouse and the demolition of the remnant of the old administration building. For both undertakings arrangements have been made.

The General Court of 1931 appropriated \$400,000 for the construction and equipment of a reception building, thus meeting the major need of the hospital. Work on this building has made substantial progress. The General Court also made provision for fencing the grounds of the hospital. Work on the fence has been delayed due to the construction of a roadway through a portion of the hospital grounds by the Metropolitan District Commission.

The trustees have recommended to the Department of Mental Diseases the early consideration of the following additional accommodations and facilities. The need of these is explained at length in the accompanying report of the Superintendent.

1. Building for 45 women, 12 married couples and an office for the West Group.
2. Building for 125 male employees.
3. Three cottages for physicians.
4. Laboratory and research building.
5. Further road construction.
6. Root cellar.

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*Trustees.*

## SUPERINTENDENT'S REPORT

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1931, and the fiscal year ending November 30, 1931. Founded by the City of Boston in 1839, this marks the completion of its ninety-second year as a hospital for mental diseases, and the twenty-third year of its history as a State institution.

### MOVEMENT OF POPULATION

The census of the hospital on September 30, 1930, was as follows: in the wards, men, 981, women, 1,279, total, 2,260; at home on visit, men, 83, women, 114, total, 197; boarding out, men, none, women, 9; and out on escape, men, 5, women, none; making a total of 2,471, 1,069 men and 1,402 women, in the custody of the hospital.

Three hundred and thirty-six men and 370 women, a total of 706, were received during the year. This included the following: first admissions as insane, men, 179 women, 250, total, 429\*; readmissions as insane, men, 41, women, 40, total, 81; first admissions, temporary care, men, 65, women, 40, total 105; readmissions, temporary care, men, 37, women, 25, total, 62; and transferred from other institutions, men, 14, women, 15, total, 29. Three hundred and forty-one, including 169 men and 172 women, were discharged during the year. One hundred and thirteen men and 109 women, a total of 222, were transferred to other institutions. One hundred and fifty men and 153 women, a total of 303, died during the year.

The census on September 30, 1931, was as follows: in the wards, men, 895, women, 1,232, total, 2,127; at home on visit, men, 75, women, 91, total, 166; boarding out, men, none, women, 15; and out on escape, men, 3, women, none; making a total of 2,311, 973 men and 1,338 women, in the custody of the hospital.

The total number of cases treated during the year was 3,177, 1,405 men and 1,772 women.

The average daily number of patients for the statistical year was as follows: men, 1,027.77, women, 1,356.10, total, 2,383.87. The average daily number in the wards was: men, 938.11, women, 1,248.68, total, 2,186.79, or 91.73 per cent of the whole number. The average daily number at home on visit was: men, 85.88, women, 94.97, total, 180.85, or 7.59 per cent. The average daily number boarding out was: men, none, women, 12.45, or .52 per cent. The average daily number out on escape was: men, 3.78, women, .002, total, 3.782, or .16 per cent. The average daily number of committed cases was: men, 916.77, women, 1,241.08, total, 2,157.85, or 98.67 per cent of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was: men, .022, women, .030, total, .052, or .002 per cent. The average daily number of cases under complaint or indictment was: men, 15.10, women, 2.32, total, 17.42, or .79 per cent. The average daily number of temporary care cases, including the emergency cases and those under complaint or indictment, was: men, 21.34, women, 7.60, total, 28.94, or 1.33 per cent. The average daily number of epileptics was: men, 16.99, women, 17.91, total, 34.90, or 1.60 per cent. The average daily number of tuberculous patients was: men, 17.72, women, 40.96, total, 58.68, or 2.68 per cent. The average daily number of reimbursing cases was: men, 100.41, women, 193.17, total, 293.58, or 13.42 per cent. The average daily number of cases supported by the State was: men, 837.70, women, 1,055.51, total, 1,893.21, or 86.58 per cent. The average daily number of ex-service cases was: men, 22.94, women, 2.00, total, 24.94, or 1.14 per cent.

The recovery rate, based on the number of all first admissions (534), was 13.11 per cent; based on the total number cared for during the year (3,177), 2.20 per cent; based on the average daily number in the wards (2,186.79), 3.20 per cent; and based on the total number of admissions for the year (706), 9.91 per cent.

The death rate, based on the total number cared for during the year, was 9.53 per cent; and based on the average daily number in the wards, 13.86 per cent. Compared with other hospitals of a similar character, the death rate at this institution is unusually large, owing to the large proportion of the population (over 35 per cent) which is of the infirmary type, and the fact that about 10 per cent are bed

\*Including 4 men and 4 women committed from temporary care admissions of the preceding year.

cases. The acutely ill, the senile, and the infirm cases from the city cannot be transported readily to distant places and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate. In this connection, attention should be called to the fact that the first admissions for this year represent an average age on admission of 54.5 years, which is two years higher than the preceding year; the first admissions at the age of sixty or over have increased about 8 per cent, and the first admissions at the age of seventy or over have increased about 9 per cent.

Of the first admissions as insane, 197, or 45.92 per cent, were foreign born, and 317, or 73.90 per cent, were of foreign parentage on one or both sides. Fifty-two, or 12.12 per cent, were aliens. Citizenship was unascertained in 45, or 10.49 per cent. Of the 4,227 consecutive first admissions for the ten-year period ending September 30, 1931, 2,055, or 48.61 per cent, were foreign born; 3,358, or 79.44 per cent, were of foreign parentage on one or both sides; 774, or 13.58 per cent, were aliens; and citizenship was unascertained in 406, or 9.60 per cent.

The average age on admission was 54.5 years; 203, or 47.32 per cent, were sixty years of age or over, and 127, or 29.60 per cent, were seventy years of age or over. For the ten-year period ending September 30, 1931, the average age on admission was 52.24 years; 1,672, or 39.56 per cent, were sixty years of age or over; and 918, or 21.72 per cent, were seventy years of age or over.

The first admissions for the year, classified according to legal status, under the General Laws, were as follows:

	Males	Females	Total
Committed cases (Sec. 51, Chap. 123)	107	149	256
Cases committed from observation (Chap. 19, Acts of 1924)	1	1	2
Voluntary admissions (Sec. 86, Chap. 123)	0	0	0
Emergency commitments (Sec. 78, Chap. 123)	1	0	1
Pending examination and hearing (Sec. 55, Chap. 123)	0	0	0
Acquitted of murder by reason of insanity (Sec. 101, Chap. 123)	0	0	0
Temporary care cases (Sec. 79, Chap. 123)	62	94	156
Observation cases (Sec. 77, Chap. 123)	8	6	14
<b>Total</b>	<b>179</b>	<b>250</b>	<b>429</b>

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (Sec. 51, Chap. 123, General Laws), 59.67 per cent; cases committed from observation (Chap. 19, Acts of 1924), .47 per cent; emergency cases (Sec. 78, Chap. 123, General Laws), .24 per cent; observation cases (Sec. 77, Chap. 123, General Laws), 3.26 per cent; and temporary care cases (Sec. 79, Chap. 123, General Laws), 36.36 per cent. For the ten-year period ending September 30, 1931, the distribution of the 4,227 first admissions classified according to legal status, was as follows: committed cases (Sec. 51, Chap. 123, General Laws), 69.74 per cent; cases committed from observation (Chap. 19, Acts of 1924), .07 per cent; emergency cases (Sec. 78, Chap. 123, General Laws), .92 per cent; observation cases (Sec. 77, Chap. 123, General Laws), 4.87 per cent; and temporary care cases (Sec. 79, Chap. 123, General Laws), 23.78 per cent. The cases held under complaint or indictment (Sec. 100, Chap. 123, General Laws) constitute .43 per cent, but this is misleading inasmuch as these cases are included only for the first three years of the above period, being counted as temporary care since that time. During the ten years referred to, there was one case pending examination and hearing (Sec. 55, Chap. 123, General Laws), one case acquitted of murder by reason of insanity (Sec. 101, Chap. 123, General Laws), and one Boston Police case (Chap 307, Acts of 1910). No voluntary cases (Sec. 86, Chap. 123, General Laws), were received during that period.

Of the 429 first admissions for the year, the cause was unascertained or no cause given in 87, or 20.28 per cent. In the 342 cases where a definite cause was assigned, the etiologic factors reported may be classified as follows: senility, 42, or 12.28 per cent; arteriosclerosis, 157, or 45.90 per cent; syphilis, 19, or 5.55 per cent; alcoholism, 24, or 7.01 per cent; involutional changes, 9, or 2.63 per cent; and

traumatism, 3, or .88 per cent. There was a family history of mental diseases in 79, or 18.41 per cent; mental defects in 10, or 2.33 per cent; and nervous diseases in 21, or 4.90 per cent, of the first admissions. Of the 4,227 first admissions to the hospital during the ten-year period ending September 30, 1931, the cause was unascertained or no cause given in 1,161, or 27.47 per cent, of the cases. In the 3,066 cases where a definite cause was assigned, the etiological factors are classified as follows: senility, 611, or 19.93 per cent; arteriosclerosis, 845, or 27.56 per cent; syphilis, 340, or 11.09 per cent; alcoholism, 343, or 11.18 per cent; involutional changes 199, or 6.49 per cent; and traumatism, 39, or 1.27 per cent. There was a family history of mental diseases in 701, or 16.59 per cent; mental defects in 76, or 1.80 per cent; and nervous diseases in 156, or 3.69 per cent, of the first admissions during this period.

The forms of mental disease shown by the 429 first admissions for the year, briefly summarized, were as follows: senile psychoses, 43, or 10.02 per cent; psychoses with cerebral arteriosclerosis, 156, or 36.36 per cent; general paralysis, 20, or 4.66 per cent; psychoses with other brain or nervous diseases, 8, or 1.86 per cent; alcoholic psychoses, 18, or 4.20 per cent; psychoses with other somatic diseases, 9, or 2.10 per cent; manic-depressive psychoses, 86, or 20.05 per cent; involution melancholia, 10, or 2.33 per cent; dementia praecox, 21, or 4.90 per cent; paranoia and paranoid conditions, 15, or 3.50 per cent; epileptic psychoses, 5, or 1.17 per cent; psychoses with mental deficiency, 18, or 4.20 per cent; and all other psychoses one per cent or less. Two, or .47 per cent, were without psychosis. The psychoses of all first admissions are shown in Table 6, on page 28. The forms of mental disease shown by the 4,227 first admissions for the ten-year period ending September 30, 1931, are summarized as follows: traumatic psychoses, 21, or .50 per cent; senile psychoses, 601, or 14.22 per cent; psychoses with cerebral arteriosclerosis, 965, or 22.83 per cent; general paralysis, 315, or 7.43 per cent; psychoses with cerebral syphilis, 21, or .50 per cent; psychoses with Huntington's chorea, 3, or .07 per cent; psychoses with brain tumor, 10, or .24 per cent; psychoses with other brain or nervous diseases, 77, or 1.82 per cent; alcoholic psychoses, 277, or 6.55 per cent; psychoses due to drugs and other exogenous toxins, 18, or .43 per cent; psychoses with pellagra, 2, or .05 per cent; psychoses with other somatic diseases, 137, or 3.24 per cent; manic-depressive psychoses, 625, or 14.79 per cent; involution melancholia, 91, or 2.15 per cent; dementia praecox, 393, or 9.30 per cent; paranoia and paranoid conditions, 260, or 6.15 per cent; epileptic psychoses, 37, or .87 per cent; psychoneuroses and neuroses, 33, or .78 per cent; psychoses with psychopathic personality, 27, or .64 per cent; psychoses with mental deficiency 125, or 2.96 per cent; and undiagnosed psychoses, 151, or 3.58 per cent. Thirty-eight, or .90 per cent, were without psychoses. Attention should again be called to the fact that the psychoses represented by our first admissions are not consistent with the admission rate shown by other hospitals. This is due to the fact that the acutely ill, the senile, and the infirm cases from the City of Boston cannot be removed to distant institutions, and for that reason are brought here. It does not mean, of course, that the admission rates for manic-depressive insanity and for dementia praecox are lower in Boston. As a matter of fact, if the senile and arteriosclerotic cases are disregarded, it will be readily apparent that this is not the case.

The forms of mental diseases shown by the readmissions for the year, briefly summarized, were as follows: senile psychoses, 2, or 2.47 per cent; psychoses with cerebral arteriosclerosis, 4, or 4.94 per cent; general paralysis, 3, or 3.70 per cent; psychoses with other brain or nervous disease, 1, or 1.24 per cent; alcoholic psychoses, 6, or 7.40 per cent; psychosis due to drugs or other exogenous toxins, 1, or 1.24 per cent; psychosis with other somatic disease, 1, or 1.24 per cent; manic-depressive psychoses, 36, or 44.44 per cent; dementia praecox, 11, or 13.58 per cent; paranoia or paranoid condition, 1, or 1.24 per cent; psychoneuroses and neuroses, 2, or 2.47 per cent; psychoses with psychopathic personality, 3, or 3.70 per cent; psychoses with mental deficiency, 6, or 7.40 per cent; undiagnosed psychoses, 2, or 2.47 per cent; and without psychosis, 2, or 2.47 per cent.

Of the 81 readmissions, 38, or 46.91 per cent, were committed under the provisions of section 51, chapter 123, of the General Laws; 35, or 43.21 per cent, were



temporary care cases (section 79, chapter 123, General Laws); and 8, or 9.88 per cent, were observation cases (section 77, chapter 123, General Laws). No emergency cases (section 78, chapter 123), no voluntary cases (section 86, chapter 123) and no cases pending examination and hearing (section 55, chapter 123) were included in the readmissions for the year.

The total number of insane cases discharged during the year was 191. Of this number, 56, or 29.32 per cent, were discharged as recovered; 104, or 54.45 per cent, as improved; 26, or 13.61 per cent, as unimproved; and 5, or 2.62 per cent, as without psychosis. Of the 56 recovered cases, 1, or 1.79 per cent, was a case of psychosis with cerebral arteriosclerosis; 12, or 21.42 per cent, were cases of alcoholic psychosis; 3, or 5.35%, psychosis due to drugs and other exogenous toxins; 4, or 7.14 per cent, psychosis with other somatic disease; 30, or 53.57 per cent, manic-depressive psychosis; 1, or 1.79 per cent, each, involution melancholia, psychoneurosis or neurosis, psychosis with psychopathic personality, and undiagnosed psychosis; and 2, or 3.57 per cent, psychosis with mental deficiency. Of the 104 cases discharged as improved, 2, or 1.92 per cent, were cases of traumatic psychosis; 5, or 4.81 per cent, senile psychosis; 16, or 15.38 per cent, psychosis with cerebral arteriosclerosis; 3, or 2.89 per cent, general paralysis; 3, or 2.89 per cent, psychosis with other brain or nervous disease; 6, or 5.78 per cent, alcoholic psychosis; 2, or 1.92 per cent, psychosis with other somatic disease; 25, or 24.04 per cent, manic-depressive psychosis; 5, or 4.81 per cent, involution melancholia; 9, or 8.65 per cent, dementia praecox; 9, or 8.65 per cent, paranoia and paranoid conditions; 2, or 1.92 per cent, epileptic psychosis; 1, or .96 per cent, psychoneurosis or neurosis; 1, or .96 per cent, psychosis with psychopathic personality; 11, or 10.58 per cent, psychosis with mental deficiency; and 4, or 3.84 per cent, undiagnosed psychosis. Of the 26 cases discharged as unimproved, one, or 3.85 per cent, was a case of senile psychosis; 8, or 30.77 per cent, psychosis with cerebral arteriosclerosis; 3, or 11.53 per cent, general paralysis; 3, or 11.53 per cent, psychosis with other brain or nervous disease; 2, or 7.69 per cent, manic-depressive psychosis; 1, or 3.85 per cent, involution melancholia; 4, or 15.39 per cent, dementia praecox; 1, or 3.85 per cent, paranoia or paranoid conditions; 1, or 3.85 per cent, psychosis with mental deficiency; and 2, or 7.69 per cent, undiagnosed psychosis.

The following is a study of the entire hospital residence (including other institutions for mental diseases) of the cases discharged during the year: Nine, or 4.71 per cent, were discharged after a residence of less than one month; 13, or 6.81 per cent, after a residence of from one to six months; 3, or 1.57 per cent, from six months to one year; 96, or 50.26 per cent, from one to two years; 28, or 14.66 per cent, two to three years; 11, or 5.76 per cent, three to four years; 8, or 4.18 per cent, four to five years; 18, or 9.43 per cent, five to ten years; and 5, or 2.62 per cent, ten years or over. The average duration of hospital residence was 2 years, 5 months, and 26 days.

Of the 287 deaths occurring during the year, 200, or 69.69 per cent, represented cases dying at the age of sixty or over. In 129, or 44.94 per cent, death occurred at the age of seventy or over. Of the 2,633 deaths occurring at the hospital during the ten-year period ending September 30, 1931, 1,852, or 70.34 per cent, were cases dying at the age of sixty or over; and in 1,006, or 38.21 per cent, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: endocarditis and myocarditis, 100, or 34.84 per cent; bronchopneumonia, 64, or 22.30 per cent; general paralysis of the insane, 27, or 9.41 per cent; tuberculosis of the lungs, 26, or 9.06 per cent; arteriosclerosis, 15, or 5.23 per cent; cancer, 11, or 3.83 per cent; nephritis, 10, or 3.48 per cent; lobar pneumonia, 8, or 2.80 per cent; and cerebral hemorrhage, 5, or 1.74 per cent.

The psychoses represented by deaths occurring in the hospital during the year were as follows: senile psychoses, 49, or 17.07 per cent; psychoses with cerebral arteriosclerosis, 118, or 41.12 per cent; general paralysis, 30, or 10.45 per cent; alcoholic psychoses, 16, or 5.57 per cent; psychoses with other somatic diseases, 9, or 3.13 per cent; manic-depressive psychoses, 14, or 4.88 per cent; involution melancholia, 3, or 1.04 per cent; dementia praecox, 25, or 8.71 per cent; paranoia and paranoid conditions, 5, or 1.74 per cent; psychoses with mental deficiency, 7,

or 2.44 per cent; and each of the following less than 1 per cent: psychosis with cerebral syphilis, psychosis with Huntington's chorea, psychosis with brain tumor, psychoses with other brain or nervous diseases, psychosis due to drugs and other exogenous toxins, epileptic psychoses, psychoneurosis or neurosis, and undiagnosed psychosis. Of the 49 cases of senile psychosis dying in the hospital during the year, 13, or 26.33 per cent, were due to bronchopneumonia, and 22, or 44.90 per cent, to endocarditis and myocarditis. Of the 118 cases of psychoses with cerebral arteriosclerosis, death was due in 50, or 42.38 per cent, to endocarditis and myocarditis, in 37, or 31.36 per cent, to bronchopneumonia, and in 10, or 8.50 per cent, death was attributed directly to arteriosclerosis. Of the 30 cases of general paralysis, death is reported as due to general paralysis of the insane in 27, although bronchopneumonia occurred in 15, or 50 per cent. Of the 25 cases of dementia praecox, death was due to bronchopneumonia in 3, or 12 per cent, to cancer in 3, or 12 per cent, to endocarditis and myocarditis in 6, or 24 per cent, and to tuberculosis of the lungs in 9, or 36 per cent.

Of the 287 patients dying in the hospital during the year, the total duration of hospital residence was as follows: less than one year, 150, or 52.26 per cent; one to three years, 44, or 15.33 per cent; three to five years, 19, or 16.62 per cent; five to seven years, 15, or 5.23 per cent; seven to nine years, 9, or 3.14 per cent; nine to eleven years, 7, or 2.44 per cent; eleven to fifteen years, 16, or 5.57 per cent; fifteen to twenty years, 12, or 4.18 per cent; and twenty years and over, 15, or 5.23 per cent. The psychoses showing the longest hospital residence were as follows: senile psychosis, two over 16 years and one over 19 years; psychosis with cerebral arteriosclerosis, one over 21 years; psychosis with cerebral syphilis, one over 16 years; manic-depressive psychosis, one over 18 years; dementia praecox, one 20 years, one 33, one 36, one 37, and one 45 years; paranoia or paranoid condition, one 16, one 17, one 33, and one 34 years; and psychosis with mental deficiency, one over 24 years. The following shows the duration of hospital residence of all cases dying in the hospital during the ten-year period ending September 30, 1931: less than one year, 1,327 or 50.40 per cent; one to three years, 538 or 20.43 per cent; three to five years, 217, or 8.24 per cent; five to seven years, 145, or 5.51 per cent; seven to nine years, 89, or 3.38 per cent; nine to eleven years, 57, or 2.16 per cent; eleven to fifteen years, 119, or 4.52 per cent; fifteen to twenty years, 61, or 2.32 per cent; and twenty years and over, 78, or 2.96 per cent. In this total of 2,633 deaths, the duration of hospital residence was unascertained in 2, or .08 per cent.

Some results of a study of the hospital residence of all consecutive admissions to this hospital for a period of ten years beginning October 1, 1920 — a total of 6,368 cases — were published in the annual report for last year. These same cases have been studied again this year, at the expiration of twelve months after the last admission. From the total admissions, all of that number who have died or been transferred previous to October 1, 1931, have been excluded, leaving a total of 3,781 cases. No consideration has been given to the deaths or transfers because such cases represent an uncompleted hospital residence, and it is impossible to determine what their hospital residence would have been had it not been terminated by death or transfer.

This study shows that 6.79 per cent were discharged after a residence in the hospital of seven days or less; 19.07 per cent, after thirty days or less; 42.82 per cent, after six months or less; and 53.47 per cent, after one year or less. It is interesting to note that of the above 3,781 consecutive admissions 13.89 per cent remained in the hospital after a residence of five years or more, and 2.43 per cent, after a residence of more than ten years.

An analysis of 3,974 consecutive admissions to this hospital for the eleven-year period beginning October 1, 1920, and ending September 30, 1931, excluding deaths, transfers, and cases discharged as without psychosis, shows a recovery rate of 16.31 per cent.

The following general information relating to the ward service should be of interest:

	<i>Males</i>	<i>Females</i>	<i>Totals</i>	<i>Percentage</i>
Average daily population . . . . .	938.11	1,248.68	2,186.79	100.00
In bed . . . . .	90.79	140.85	231.64	10.59
Congregate dining room . . . . .	795.12	724.24	1,519.36	69.48
Eating in wards . . . . .	142.99	524.44	667.43	30.52
Fed by nurses . . . . .	15.21	87.17	102.38	4.68
Idle . . . . .	358.49	677.30	1,035.79	47.37
Employed . . . . .	579.62	571.38	1,151.00	52.63
Parole of Grounds. . . . .	106.70	12.12	118.82	5.44
Out for Exercise . . . . .	843.04	739.93	1,582.97	72.39
Noisy . . . . .	53.75	229.58	283.33	12.95
Violent . . . . .	.27	47.48	47.75	2.18
Destructive . . . . .	17.14	183.16	200.30	9.16
Soiled or Wet. . . . .	108.56	220.14	328.70	15.03
Taking Medicine . . . . .	42.00	30.41	72.41	3.31
Epileptic . . . . .	16.99	17.91	34.90	1.60
Tuberculous . . . . .	17.72	40.96	58.68	2.68
Infirm . . . . .	366.97	419.13	786.10	35.95
In restraint . . . . .	3.23	11.18	14.41	.66
In seclusion . . . . .	5.49	23.09	28.58	1.30

The percentages given above represent the average daily number for the entire year, that is: the average daily number of patients in bed was 231.64, or 10.59 per cent of the average daily number of patients in the wards of the hospital for the year, and the average daily number out for exercise was 1,582.97, or 72.39 per cent of the same average daily population. The proximity of the institution to the City of Boston is responsible to a great extent for the large proportion of our patients who belong to the infirmary class — nearly thirty-six per cent this year of the total average daily number cared for. Taking into consideration the percentage of infirm, including the bed patients, it will be observed that a large proportion of our patients go out for exercise, and a considerable number are employed in useful occupations. The average daily number of noisy patients and the average daily number of violent patients continue to be of interest.

#### GENERAL HEALTH OF THE HOSPITAL

The health of the patients and personnel was good throughout the year. A small epidemic of grippe was experienced during the winter. In February, 98 mild cases occurred — 85 patients and 13 employees. The cases were evenly distributed, no particular group or ward of the hospital showing a marked preponderance of patients affected. In the majority, the disease ran a short course, and no deaths occurred. There were no other epidemics in the hospital during the year.

One patient, a man, was found when admitted from a general hospital to be suffering from pellagra. Under appropriate treatment the skin lesions disappeared and he recovered from his psychosis, which was due to pellagra. He has since left the hospital and has shown no tendency towards a recurrence.

One case of scarlet fever developed. This was in an attendant nurse. The disease was mild and ran an uncomplicated course, the nurse eventually returning to duty. No other cases appeared in the hospital and it was thought probable that the employee had contracted the disease while absent from the institution.

Mrs. Edna D. Allen, head housekeeper, died very suddenly on January 28th. She was attending to duties incident to her work when she suddenly became unconscious and died immediately. It was known that Mrs. Allen had been suffering from a chronic heart disease, for which she had been receiving treatment for some time.

During the year, the employees experienced the usual number of accidents and injuries, all of which were reported in the usual manner to the Department of Industrial Accidents. These injuries were of a minor nature with the exception of one which was quite serious — that of an attendant nurse who sustained a compound

fracture of the jaw as the result of being struck in the face by a disturbed patient.

Occasional fractures occurred among the aged and infirm patients, as the result of accidental falls. These were all reported to the Department of Mental Diseases and to the Board of Trustees.

Six hundred and nine-six (696) Wassermann examinations were made for us by the State Department of Public Health — 616 blood serum and 80 cerebrospinal fluid. There have been 596 treatments for neurosyphilis throughout the year, to 51 different patients, making an average number of 11.69 treatments per patient. A full account of this work is given on another page.

#### EMPLOYEES

On September 30, 1930, there were 454 persons employed in the hospital. During the year, 269 were appointed, 256 resigned, and 27 were discharged. Seven hundred and twenty-three persons occupied 477.5 positions — a rotation of 1.51. The average daily number of employees during the year was 458.64, with 3.53 per cent of vacancie. The average daily number in the ward service was 254.79, with 4.45 per cent of vacancies. The ratio of ward employees to patients was one to 8.58, and of all employees, one to 4.77. The personnel of the hospital has been more stable during the past year, and there has been a considerable increase in the number of applicants with higher educational qualifications. This is without doubt due to a great extent to the unemployment situation. The total number of visitors to patients during the year was about 70,000, the maximum number on one day being 1,081. These visitors require considerable attention from the nurses and attendants.

#### MEDICAL SERVICE

There were no changes in the medical staff until April 28, 1931. On that date, Dr. Eleanor H. Beamer, who was appointed assistant physician on July 7, 1930, resigned, and was succeeded on May 1st by Dr. Sirrka E. Vuornos. Dr. Vuornos was graduated from the Sandwich, Massachusetts, High School and was a student for three years at the Boston University College of Liberal Arts. She received the degree of M. D. from Tufts College Medical School in 1930, and was an interne for one year at the New England Hospital for Women and Children. Dr. William J. Dahill, appointed assistant physician on July 1, 1930, resigned on April 30, 1931. On June 15th, Dr. Joseph Hahn was appointed assistant physician to fill this vacancy. Dr. Hahn received his preliminary education at the English High School and Tufts College. He graduated from Tufts College Medical School in June, 1931. He served as an interne in the Nerve Service of the Boston City Hospital. Dr. Margaret C. McManamy was appointed assistant physician on September 17, 1931, to fill the vacancy created by the promotion of Dr. Herbert E. Herrin on August 1, 1929, from senior physician to Assistant Superintendent. Dr. McManamy is a graduate of the Athol High School and Tufts College Pre-Medical School. She received her medical degree from Tufts College Medical School in 1930, and served for one year as an interne at the Worcester Memorial Hospital, Worcester, Mass. During the summers of 1929 and 1930, she was a clinical assistant at this hospital.

The list of consultants remains unchanged. The hospital has been visited at frequent intervals by Dr. Irving J. Walker, Dr. Charles C. Lund, and Dr. Grace E. Rochford, who have performed the necessary major operations. Dr. William E. Preble and Dr. Albert Evans, internists, have responded to frequent calls during the year. Dr. Abraham Myerson, consulting neurologist, has seen several patients during the year, and Dr. Edwin H. Place, epidemiologist, has been called in consultation whenever communicable disease has been suspected. Five hundred and fifty-two patients were examined and treated in the eye clinic, which has been in charge of Dr. Paul A. Chandler throughout the year, and Dr. Donald H. Macdonald has examined and treated 524 patients in the ear, nose and throat clinic.

The third year students of Tufts College Medical School were given eight clinics in psychiatry by Dr. Roy D. Halloran, Assistant to the Commissioner of the Department of Mental Diseases, and by Dr. Herbert E. Herrin and Dr. Gerald F. Houser, instructors in psychiatry at the Tufts College Medical School, and one

clinic in mental deficiency by Dr. C. Stanley Raymond, Assistant to the Commissioner of the Department of Mental Diseases. As in the preceding year, two fourth year students of that school each month of the school year were in residence at the hospital and received instruction in psychiatry. Other clinics in psychiatry were given as follows: by Drs. Herrin and Houser, three to the third year students of the Boston University School of Medicine; by Dr. Herrin, one to the fourth year students of Middlesex College of Medicine and Surgery; and by various members of the medical staff, to the nurses from the training schools of Cambridge Hospital (two), Massachusetts Memorial Hospitals (one), and Beth Israel Hospital (one).

Instruction consisting of information relating to different forms of commitment, some facts pertaining to the keeping of records, hospital administration, and various methods of treatment, was given to a group of four physicians under the auspices of the Rockefeller Foundation.

Staff meetings have been held as usual, alternating between the East Group and the West Group, with one meeting each month at the pathological laboratory. At these meetings an effort is made to present all new admissions, as well as cases about to leave the hospital on visit or to be discharged.

During the past year, the venereal clinic was conducted by Dr. Gerald F. Houser with the assistance of Dr. Frederick LeDrew and Dr. William J. Dahill. Student internes were instructed in syphilotherapy and given an opportunity to perform some of the work. The Research Department treated a small number of cases of neurosyphilis and used typhoid vaccine in addition to tryparsamide in four cases. These were intravenous injections. Seven cases were given tryparsamide by the carotid route. In all, 27 cases, 23 men and 4 women, received 367 intravenous injections of tryparsamide. Of these, 12 showed distinct improvement, 6 grew worse, and 9 remained unchanged in a fairly well preserved state. One hundred and eighty-five intravenous injections of sulpharsphenamine were administered to 22 patients, 20 men and 2 women, and 7 of these were cases of vascular syphilis which was incidental and not a factor in any mental symptoms shown. Two of these cases of vascular syphilis became Wassermann negative and the other 5, cases of long standing, showed no active signs of the disease. Three neurosyphilitic patients receiving sulpharsphenamine were unaffected by treatment and grew definitely worse. The remaining 12 (neurosyphilitics) were unchanged by sulpharsphenamine therapy, but were in relatively good physical condition. Sixteen intravenous injections of a bismuth preparation were given to 4 men, 2 of whom showed neurological involvement. The other 2 were cases of vascular syphilis who had previously received sulpharsphenamine. Improvement was noted in both of the latter, while the other 2 remained unchanged. Twenty-eight injections of typhoid vaccine were given to 4 cases previously treated with arsenicals. Two of these remained unchanged and the other two grew worse. "Neurosyphilis" includes both general paralysis and cerebrospinal syphilis.

#### RESEARCH DEPARTMENT

The work of the research laboratory under the direction of the Department of Mental Diseases has been conducted during the year by Dr. Abraham Myerson. With him have been associated Dr. Roy D. Halloran, Dr. William Dameshek, and Dr. Julius Loman. Dr. Pelagio Potenciano, who joined this group on November 24th, left the first of June, and was replaced by Dr. Stewart Krohn, who was in residence at the hospital from June 15th to December first. The biochemical and general technical work is done by Miss Caroline Stephenson, and Mr. David Goldman has been assisting in the laboratory since June 15th. The illness of Dr. Loman has necessitated his absence for several months and impaired the activities of this department.

Studies have been made on the effects of drugs and the effects of other conditions on intracranial pressure, internal jugular pressure, and arterial pressure. It was shown that changes in posture, conditions in the thorax, and the abdominal pressure conditions affected in a consistent and predictable way the pressure in the internal jugular as well as in the cranium. The drugs studied were adrenalin, pituitarin, amyl-nitrate, histamin, and caffeine. It was shown that adrenalin

increased either the arterial or spinal fluid and venous pressure within the head; that histamin raised the intracranial pressure without changing the venous or arterial pressure; that caffeine lowered the intracranial pressure without affecting venous or arterial pressure; and that amyl-nitrate increased internal jugular venous pressure and spinal fluid pressure. Explanations for these results were tentatively made and their clinical significance noted.

A great deal of work in the laboratory has been in studies of the pigment in the blood in senile states. Thus far, no publication has been made on the subject. The technique is intricate and the results are frequently contradictory. There does seem, however, to be inactive pigment present in the blood of the senile patients, that is, pigment which is not performing the function of carrying oxygen to the tissues and returning carbon dioxide from them; in other words, there seems to be some fundamental interference with the physiology of these individuals.

Studies have been made on the reaction to fatigue in exertion, especially in relation to lactic acid formation. Here, too, the results have been definitely contradictory. It is probable that the technique used is limited, owing to the fact that we are dealing with human beings who respond emotionally to the situation. Some interesting and important leads, however, have been uncovered, which will be followed during the coming year.

We need more laboratory space, and this has been promised. The laboratory is in active collaboration with the Physiology Department of Tufts College Medical School and this will doubtless continue.

During the year the following papers were published in the Report of the Department of Mental Diseases: "The Physiological Approach to the Psychoneuroses," by Dr. Abraham Myerson; "Studies of the Biochemistry of the Brain Blood by Internal Jugular Puncture," by Dr. Abraham Myerson and Dr. Roy D. Halloran; "Comparison of Treated and Untreated Cases of General Paresis," by Dr. Julius Loman; "The White Blood Cells in General Paresis," by Dr. William Dameshek; and "Sedimentation Rates in Various Psychoses," by Caroline Stephenson. The following was published in collaboration with the Harvard Fatigue Laboratory: "The Composition of Blood in the Artery, in the Internal Jugular Vein and in the Femoral Vein during Oxygen Want," by Dr. Abraham Myerson, Dr. Julius Loman, Dr. H. T. Edwards, and Dr. D. B. Dill. Two papers on intracranial pressure and the relation to internal jugular pressure have been accepted by the Archives of Neurology and Psychiatry for publication. Papers on the above subjects were read at the Boston Society of Psychiatry and Neurology, the Greater Boston Medical Society, the Massachusetts Psychiatric Society, and the annual meeting of the American Neurological Society.

#### SOCIAL SERVICE DEPARTMENT

During the year, the work of the department has been under the direction of Miss Florence E. Armstrong, head social worker. The personnel of paid workers has remained unchanged throughout the year and consisted of one social worker and two assistant social workers in addition to the head social worker. Although a new assistant social worker was authorized in June, a vacancy still exists, owing to the difficulty in securing the most suitable candidate. In view of the policy, now well established, of training our own workers for State hospital social service, it is to be hoped that the vacancy may be filled from those thus qualified who were students last year and who are not yet employed.

This promise of an additional worker gives the social service department a new vision of its double objective. We believe it is the proper function to serve, first, the interests of the patient in relation to the hospital, and, second, the patient in the community. Heretofore, the first consideration has occupied the greater part of the time. By means of thorough, painstaking investigation, the social workers have aimed to assemble material from the patient's environment, which, supplementing the intensive study of the physician, helps to give a better understanding of the personality and to establish a diagnosis and a subsequent plan of treatment both psychiatric and social. This also provides a good foundation for the later work of supervision. However, it is our hope to accomplish more than the mere study and diagnosis of the cases considered. Both logically, and from the human

standpoint, work with the patients should be carried on after they leave the hospital. They should receive the benefit of supervision, of relief from social stresses when possible, and of aid in facing and solving their problems. A department twice the size of the present one could probably render adequate services to all patients who require such attention.

During the past year, the department has made full investigation in seventy-nine cases admitted under the provisions of Section 77 of Chapter 123 of the General Laws, and in twenty-one cases committed under the provisions of Section 100 of the same chapter, in addition to many cases regularly committed under Section 51. Social workers have also assisted the medical staff on visiting days and have taken numerous histories. Many of these histories have been developed, without request from the medical staff, into full investigations for diagnostic purposes in an effort to anticipate last minute calls from physicians presenting these patients at staff meetings. This is one instance of the better organization made possible by a larger personnel.

One student under training for State hospital service remained at the hospital throughout the nine months period. There being no vacancies in the social service departments in the State hospitals, at the expiration of this time she secured a position in the Travelers' Aid Society of Boston, having competed with several other well qualified candidates. Two students assigned to this hospital by the Simmons School of Social Work for their field training did excellent work and gave distinct assistance to the hospital.

The following tables shows the movement of patients under supervision and the social service work done during the year:

	Males	Females	Totals
In Family Care September 30, 1930 . . . . .	0	9	9
On visit September 30, 1930 . . . . .	83	114	197
On escape September 30, 1930 . . . . .	5	0	5
On visit from Family Care September 30, 1930 . . . . .	0	0	0
Dismissed to Family Care during the year . . . . .	0	11	11
Went out on visit during the year . . . . .	775	229	1,004
Escaped during the year . . . . .	11	1	12
Admitted from Family Care during the year . . . . .	0	5	5
Admitted from visit during the year . . . . .	716	162	878
Admitted from escape during the year . . . . .	11	1	12
Admitted from Family Care and discharged . . . . .	0	0	0
Admitted from visit and discharged . . . . .	67	90	157
Admitted from escape and discharged . . . . .	2	0	2
In Family Care September 30, 1931 . . . . .	0	15	15
On visit September 30, 1931 . . . . .	75	91	166
On escape September 30, 1931 . . . . .	3	0	3
On visit from Family Care September 30, 1931 . . . . .	0	0	0
Total number of cases considered . . . . .			543
New cases . . . . .			422
Renewed cases within the year . . . . .			65
Renewed cases from previous years . . . . .			56
Cases continued from previous years . . . . .			58
Cases closed during the year . . . . .			486
Cases continued to following year . . . . .			57

#### PATHOLOGICAL LABORATORY

Dr. Naomi Raskin, pathologist, has continued in charge of the laboratory during the past year, with the assistance of one laboratory technician. The following is a summary of the routine work of the pathological laboratory for the year: abdominal exudate, 1; autopsies, 149; bacteriological slide examinations, 89; bacteriological culture examination, 1; blood examinations: red counts, 116; white counts, 123; differential counts, 115; reticulocyte counts, 45; hemoglobin estimations, 116; clotting times, 2; gastric juice analyses, 2; icteric indices, 6; pleuritic fluid examinations, 5; spinal fluid examinations, 99; sputum examinations, 103; stomach content examinations, 6; stool examinations, 8; surgical specimens, 16; tissue sections, 1,387; urinalyses, 1,598; and vomitus, 1.

The number of deaths during the year was 303, 149 of which came to autopsy, making the autopsy percentage 49.17 for the year.

The psychoses represented in cases coming to autopsy were as follows: senile psychoses, 26; psychoses with cerebral arteriosclerosis, 58; general paralysis, 17; psychosis with Huntington's chorea, 1; psychoses with brain tumor, 2; psychoses with other brain or nervous diseases, cerebrospinal meningitis, 1, organic brain disease, 1; alcoholic psychoses, Korsakow's psychosis, 5, chronic hallucinosis, 2; alcoholic deterioration, 1, other types, 2; psychoses due to drugs and other exogenous toxins, allonal and veronal, 1, morphine, 1; psychoses with other somatic diseases, pulmonary tuberculosis, 1, cardiorenal disease, 6; manic-depressive psychoses, 7; involution melancholia, 2; dementia praecox, 8; paranoid conditions, 2; epileptic psychoses, 2; psychoses with mental deficiency, 2; and undiagnosed psychosis, 1.

The following were the causes of death: abscess of the lungs, 2; acute myocarditis and abscess of both frontal sinuses, 1; acute suppurative cystitis, 1; bronchopneumonia, 4; bronchopneumonia with: acute endocarditis, 1, acute and chronic myocarditis, 1, acute gastroenteritis, 1, acute suppurative otitis media, 1, brain tumor, 1, cardiorenal disease, 1, chronic myocarditis, 6, chronic myocarditis and syphilitic aortitis, 1, chronic fibrous myocarditis and general arteriosclerosis, 7, chronic nephritis, 2, fibrous degeneration of the heart, 1, general arteriosclerosis 24, general paralysis of the insane, 7, Huntington's chorea, 1, pernicious anemia, and general arteriosclerosis, 1, and pyelonephritis, 1; cancer of the common duct and gall bladder with arteriosclerosis and bronchopneumonia, 1; cancer of the stomach with general arteriosclerosis, 1; cancer of the uterus with fibrinopurulent peritonitis, 1; carcinoma of the esophagus, with bronchopneumonia, 1; carcinoma of the rectum, with bronchopneumonia, 1; carcinoma of the stomach with chronic myocarditis, 1; carcinomatosis with bronchopneumonia, 1; cardiorenal disease with arteriosclerosis and cirrhosis of the liver, 1; cardiovascular renal disease with general arteriosclerosis, 2; cerebral hemorrhage, 1; cerebral hemorrhage with bronchopneumonia, 1; cholecystitis with stone in the cystic duct, chronic parenchymatous nephritis and infarct of lung, 1; chronic myocarditis, 3; chronic myocarditis with: carcinoma of the bladder, 1, chronic nephritis, 2, pulmonary edema, 1; chronic pulmonary tuberculosis with acute endocarditis, 1; coronary thrombosis with general arteriosclerosis, 1; general arteriosclerosis, 6; general arteriosclerosis with: cerebral hemorrhage, 1, chronic endocarditis, 1, chronic endocarditis and chronic myocarditis, 1, chronic myocarditis, 15, chronic myocarditis and chronic nephritis, 2, chronic nephritis, 2, chronic nephritis and bronchiectasis, 1, chronic vascular nephritis and pericarditis, 1, and softening of the brain, 1; general paralysis of the insane, 2; general paralysis with chronic hepatitis, 1; general paralysis with diaphragmatic pleurisy, right, 1; hemoperitoneum with hemorrhage into the intestines, 1; lobar pneumonia, 2; lobar pneumonia with: chronic endocarditis and general arteriosclerosis, 1, general arteriosclerosis, 2, pleurisy with effusion, 1, and pulmonary tuberculosis, 1; mitral stenosis with general arteriosclerosis, 1; pernicious anemia with chronic myocarditis, 1; pulmonary tuberculosis, 4; pulmonary tuberculosis with: bronchopneumonia and general arteriosclerosis, 1, chronic myocarditis, 2, general arteriosclerosis, 1, edema of the brain, 1, tuberculous peritoneum, 1; renal calculi with pyelonephritis and general paralysis, 1; septicemia with multiple abscesses of the liver, 1; splenomyelogenous leukemia, 1; status epilepticus, 1; strangulated hernia with obstruction, 1; tuberculosis of the lungs, liver, intestines and peritoneum, and tuberculoma of the brain, 1; volvulus of the intestines, with chronic myocarditis and general arteriosclerosis, 1.

#### DENTISTRY

The work of the dental department has been carried on throughout the year by Dr. George S. Rileigh, the resident dentist, with the aid of one dental assistant. An effort is made to give each patient an examination at least twice during the year, although this is not possible in all cases. Each new admission is thoroughly examined within a day after arrival, and his condition recorded on dental charts, thus completing the physician's physical examination. Those who require treat-



ment on arrival are given immediate attention. General anesthesia is given in a number of cases where the use of a local anesthetic is contraindicated. Whenever necessary, curetting all diseased sockets and suturing of the tissue have been regular procedures. Gauze drain shave been used to a considerable extent whenever the operation required them. X-ray pictures have also been taken to help in diagnosis of suspicious conditions. The aim of the dental department is to preserve and restore, whenever possible, the masticatory apparatus as a whole. The following is a summary of the work accomplished during the year: examinations, 1,195; extractions, 1,260; filling, 694; prophylaxis, 713; restorations, 504; treatments, 1,676; patients treated, 2,542.

#### HYDROTHERAPY

During the year the hydrotherapy department has been under the direction of Mrs. Ina M. Mills at the East Group and Mr. Clarence A. Pond at the West Group. Six thousand four hundred and forty-five continuous baths were given to 76 different patients, and 11,171 wet sheet packs to 128 different patients, making the average number of continuous baths 84.8 per patient and that of packs 87.27. The average daily number for the year was 17.93 continuous baths and 30.61 packs. The following treatments were given during the year: salt glows, 252; saline baths, 465; foot baths as preparatory treatments, 305; tub shampoos, 740; hair shampoos, 750; rain douches, 325; fan douches, 168; pail douches, 225; needle sprays, 4,346; and cabinet baths, 20. Instruction was carried on as usual, and 87 lessons were given.

#### SCHOOL CLINIC

As in the past several years the work of the school clinic has been continued by Dr. Alberta S. B. Guibord, aided by one psychologist. The work has been carried on in the public schools of Everett and Somerville and 381 pupils have been examined. The diagnosis of intellectual equipment is distributed as follows: feeble-minded, 109; borderline, 127; dull normal, 100; normal, 30; supernormal, 1; diagnosis deferred, 14. Included in the above were 23 with psychopathic traits; 4 epileptics; 1 hydrocephalic; 1 Mongolian defective; 2 with chorea; and 7 delinquents (court). The correctable physical defects were as follows: nutrition, 106; posture, 32; vision, 70; hearing, 14; nose and throat, 61; and teeth, 109. One hundred and nine had no discoverable correctable defects. Recommendations were as follows: for a special class of some kind, 129; for institutions, 17; and other programs, 235.

#### TRAINING SCHOOL FOR NURSES

The nursing service of the hospital has been continued during the year under the direction of Miss Mary Alice McMahon, R. N., Principal of the School of Nursing. The training school for psychiatric nurses, established on October 1, 1930, began its second year with twenty pupils in the junior class and ten in the senior class. This training school provides a course of two years duration and is given to all of the ward employees who have the proper educational qualifications. Only those who have had a grammar school education are allowed to enter. The practical work includes instruction, and actual nursing care, in the wards, of patients suffering from the various types of mental disease. Special emphasis is given to the nursing care of patients showing symptoms of excitement, depression, confusion, suicidal and homicidal tendencies and epilepsy. Each student receives special instruction in medical and surgical nursing and practical work with acute and chronic bed cases. Practical instruction is also given in hydrotherapy, physiotherapy, the preparation and serving of food, the preparation of surgical dressings, and assisting at operations, etc. Lectures, recitations, and demonstrations are held according to schedule. When the term of two years is completed, the pupils are thoroughly qualified, and they will receive, if their conduct and examinations have been satisfactory, a certificate to that effect. The graduates of this course will be added to the list of eligibles for promotion in the hospitals. During the year 1931, the number of nurses graduating from the regular training schools of the Massachusetts State Hospitals was 37, an average of 5.29 for the seven hospitals represented, which were as follows: Danvers, 4; Grafton, 4; Medfield, 4; Monson,

3; Taunton, 5; Westborough, 9; and Worcester, 8. A recent report shows that in fourteen State Hospital training schools in New York there was an average number of six graduates per hospital in the Registered Nurse class.

The systematic instruction of attendant nurses, both male and female, not enrolled in other training school classes, is being continued along the lines prescribed by the Committee on Training Schools, representing the Department of Mental Diseases, and 98 have received such instruction during the year. We have now in the ward service eight graduates of the Boston State Hospital Training School.

#### OCCUPATIONS AND INDUSTRIES

In March of this year the head occupational therapist, Miss Augusta R. Hodges, was transferred to a neighboring hospital and was succeeded here by Miss Ethel M. Anderson. Of the eight assistants in this department, two have resigned and one worker has been appointed, leaving one vacancy. On account of these changes the work has been correspondingly handicapped. As usual, this department has been able to follow the progress of the male patients from the time of their admission until the time of their parole or discharge. There are class rooms for men in the West C and F buildings. Much woodwork is done, consisting chiefly of small articles from waste wood. There is also the weaving of rugs and runners, basketry, knotting, painting, some mop making, and the making of brushes and hooked rugs. Because of the need of more intensive occupational therapy in the East Group, the number of workers there has been increased from two to three, with promising results. The patients in the East A, B, C, D, and F buildings and in the admission and infirmary wards receive instructions three days a week each, the work being done in both the morning and afternoon. The customary routine has been followed among the female patients in the West Group, consisting of classwork in the basement of the B building and on the wards in the A building five mornings each week and ward work in both A and B buildings in the afternoon. The women enjoy needle work of all kinds, weaving, braiding and hooking rugs, knitting, crocheting, raffia work, toy making, basketry, painting and crayoning. The group in the West B basement is frequently called upon to mend for this section of the hospital. Approximately 625 different patients, more than one quarter of the hospital population, have been in contact with the department every week throughout the year with a daily average of 260, one-third of which were male patients and two-thirds female patients. The estimated value of the articles produced during the year was \$3,293.40, and that of the mending \$2,187.90, a total of \$5,481.30.

Mrs. Madge B. Richardson has carried on the work of the Industrial room for women as in several years past. The patients are occupied in basketry, rug making, weaving, lace making, embroidery, knitting, sewing, crocheting and mending. The estimated value of the articles produced in this department during the year is \$2,336.65, in the sewing room \$10,394.23 (a total of \$12,730.88), exclusive of mending, the value of which is estimated as \$3,766.00, making a total of \$16,496.88. The industrial work for the men in the West Group has been continued under the direction of Mr. James F. Hurley. This is done entirely in the basement of the B building in the West Group, and includes shoe repairing and various other repair work, the manufacture of several kinds of brushes, brooms, coat hangers, hats, mattresses, pillows, and numerous other articles. The estimated value of articles produced during the year is \$3,026.19, and of renovation and repairs, \$2,831.40, a total of \$5,857.59. The estimated value of all articles produced during the year in the occupational and industrial departments of the hospital is \$19,050.47, and of renovation and repairs, \$8,779.30, making a total value of \$27,829.77.

#### OCCUPATIONAL THERAPY CENTER AT CITY MILLS, MASSACHUSETTS

During the past year, the Occupational Therapy Center at City Mills has been filled to capacity almost continuously. Several women who have previously enjoyed their residence there prior to discharge from the hospital have returned, either for a rest or for a home between leaving one position and taking another. It would be a revelation to skeptics to observe with what contentment and good will toward one another a group of women can get along together in such a small world of their own. Great credit must be given to Mrs. Nellie Gay, who has direct super-

vision of the undertaking, for her extraordinary insight into difficult personalities, her capacity for preventing maladjustment in the group, and her serenity and composure in the face of all problems. There have been no serious illnesses among the patients and no one has been returned to the hospital. From time to time, those who are well enough, and who are trustworthy away from supervision, have been allowed to go home on visits. Several patients have been placed out to work, and more would have gone if this had not been such a difficult year in the economic world.

The old house purchased a year ago has been improved and repaired almost beyond recognition. It has been made into a charming home. This and the pleasant countryside, with its opportunity for strolls in the pine woods, make an exceptional environment for our patients.

On September 30th, Miss Alberta Grover, in charge of occupational therapy in the Center, resigned, and her successor had not been appointed at the end of the year.

The receipts for the sale of articles during the year have been somewhat less than in previous years, because of a dull market and the general lowering of prices in this field. This year the Trustees of the Permanent Charity Fund decided to withdraw their contribution to our work because other agencies were in need of their assistance and because of the fact that the State has assumed the financial responsibility for the City Mills enterprise. For several years this gift from the Permanent Charity Fund has been invaluable to our undertaking and it deserves our most grateful acknowledgment.

Dr. Arthur McGugan asked to be relieved of his duties as the treasurer of the fund, owing to the pressure of many other interests. He consented, however, to remain on the committee. We are deeply indebted to him for his services during several years. Mrs. Sydney Dreyfus became treasurer in Dr. McGugan's place. Her interest in the affairs of mental patients has already been manifested in her capacity as a Trustee of the Boston State Hospital. Nevertheless, it would be unfair to her many qualifications if we failed to emphasize her warm human interest in the happiness of these particular patients and her concern for their handicap. The personnel of the committee is as follows: Mrs. Sydney Dreyfus, Treasurer; Mrs. Horatio Lamb; Mrs. Henry Tudor; Mrs. Douglas Thom; and Dr. Arthur McGugan. The head social worker of the hospital acts as chairman, and is supervisor of the Center.

#### AGRICULTURAL ACTIVITIES FOR THE YEAR

The work of the farm has been carried on under the direction of Mr. Ralph B. Littlefield throughout the year. A total of  $131\frac{3}{4}$  acres was under cultivation. This consisted of  $48\frac{1}{8}$  acres devoted to gardening,  $83\frac{3}{4}$  acres of meadowland, and  $\frac{1}{4}$  acre of orchards and small fruits. The estimated value of farm products for the year was \$19,262.24.

#### FINANCIAL STATEMENT

The maintenance appropriation for the year was \$841,480.00, with \$21,684.99 brought forward from the preceding year, making a total of \$863,164.99.

	Amount Expended	Per Capita	Percentage of Total
Personal services . . . . .	\$435,342.35	\$200.703	54.531
Travel, transportation and office expenses. . . . .	7,441.41	3.431	.932
Food . . . . .	164,524.11	75.850	20.608
Clothing and materials . . . . .	26,055.65	12.012	3.264
Furnishings and household supplies . . . . .	34,413.68	15.866	4.311
Medical and general care . . . . .	36,743.20	16.940	4.603
Religious instruction . . . . .	2,079.98	.959	.260
Heat, light and power . . . . .	51,643.41	23.809	6.469
Farm . . . . .	6,164.47	2.842	.772
Garage, stable and grounds . . . . .	8,529.91	3.933	1.068
Repairs, ordinary . . . . .	14,746.37	6.799	1.847
Repairs and renewals . . . . .	10,664.67	4.913	1.335
Total . . . . .	\$798,349.21	\$368.057	100.000

Based on the average daily population of the hospital, 2,169.09, the per capita cost of maintenance for the year was \$368.57, or \$7.078 per week, the lowest per capita cost since 1928. This is due to a considerable extent to the lower prices of foodstuffs. The per capita cost for the year 1930 was \$374.334, or \$7.198 per week.

The large percentage of infirmary patients and the old ward buildings with small units and many single rooms require a greater number of employees than would otherwise be necessary. No buildings designed for purely custodial patients in large numbers have ever been erected at this hospital. Repairs on the old buildings are increasingly extensive.

#### GENERAL OPERATIONS FOR THE YEAR

During the year, religious services have been held regularly. Owing to ill health, Rev. Martin S. Curran, who had been chaplain for the Roman Catholic patients since December, 1928, was obliged to give up his duties here, and was succeeded in March by Rev. Frederick G. M. Driscoll. Protestant services have been conducted by Rev. Harold H. Cramer, and Rev. Moses L. Sedar has made frequent visits in behalf of the Jewish patients. Rev. Albert C. Larned, representing the Episcopal City Mission, gave up his work here on account of ill health, and in October Rev. Frank H. Stedman was assigned in his place.

The entertainment of patients has been given the usual careful consideration. Moving picture shows have been well received, and dances have been held from time to time. The radio programs continue to furnish enjoyment to the patients in practically all of the wards. The Christmas entertainment in the East Group chapel was attended by a large number of patients and was thoroughly enjoyed.

Representatives of the Department of Mental Diseases have visited the hospital from time to time.

Contracts were awarded by the Department of Mental Diseases on July 31, 1930, for a building for twenty male employees and a building for sixty female employees in the East Group. The former was completed and occupied on March 6th and will be known as the East Group male employees' building. The latter was finished and occupied on March 16th and will be designated as the East Group office building. The old Austin farm house was removed from its former site to a place just inside of the hospital entrance to the East Group on Canterbury Street. An addition to this building will serve to complete what will be known hereafter as the East Group staff house. We hope to occupy this building during December. The remainder of the old East Group administration building will be torn down soon.

The new continuous bath room in the West A Building was occupied on February 10th.

On March 12th, 53 male patients were transferred to the Metropolitan Hospital, followed by 41 male patients on March 25th. On April 8th, 55 female patients were transferred to the same institution, and 47 more on April 22nd. This makes a total of 94 male and 102 female patients transferred to the Metropolitan Hospital during the year. On October 23rd, 27 male and 21 female patients were transferred to the Grafton State Hospital.

Loud speakers were installed in the various wards of the West B Building in February. We now have radio reception in every ward building with the exception of East B and West H.

Shelving was installed in the occupational therapy unit in the West C Building in February, to make provision for the beginning of a patients' library, the books to be distributed under the supervision of the head occupational therapist. We are indebted for several hundred volumes to Miss E. Kathleen Jones, General Secretary of the Division of Public Libraries, of the State Department of Education. There were about one thousand volumes in this library at the end of the year.

Considerable grading has been done in front of the administration building during the summer, and a hedge fence was planted on Morton and Harvard Streets. This will add materially to the attractive appearance of the administration building.

The old garage and several old wooden storehouses near the administration building in the East Group were torn down during the summer, and considerable grading was done around the male employees' building.

Extensive grading operations were completed during the year in the neighborhood of the new East Group staff building.

Gas was installed in the employees' clubhouse in the West Group, in October.

A food elevator was installed in the West A Building during the summer. This will make it possible for us to bring food supplies upstairs from the kitchen to the West A-2 ward. One of the six-bed dormitories will be made over later into a dining room.

A food elevator was installed during the summer in West E I. This building will be remodelled and made available for the care of tuberculous male patients.

In October, window guards were installed in West E I and in the top floor of West B Building (West B-6).

The following painting was done during the year:

*East Group.* The interior of the laundry, including the wash room, and the interior of the storehouse.

*West Group.* The interior of the West Group nurses' home, and the interior and exterior of the West Group kitchen.

Field Day exercises were held at the West Group on July 3rd. A 60-piece band from the House of the Angel Guardian School furnished the music. A tent was erected and the baseball field decorated for the occasion. Refreshments were served and there were games of all sorts for both patients and employees, prizes being awarded for the various events. The women of the East Group were brought over by buses furnished by the Boston Elevated Company. The expenses of the entertainment were paid by the employees' club.

On February 23rd, Joseph A. Siciliano was appointed pharmacist to fill a vacancy which had existed since August 2, 1930.

Chapter 245 of the Acts of 1931 appropriated the sum of \$15,000 for the purchase and erection of fencing. This will be installed on Morton and Canterbury Streets.

The channel of the Canterbury Branch of Stony Brook is still badly obstructed by weeds. It has not been cleaned out since 1926.

The new greenhouse, for which provision was made in the appropriation already referred to for the East Group office building, male employees' building, etc., will be located in the East Group, facing the administration building, at a point about 250 feet southwest of the East Group kitchen and dining room building.

Chapter 268 of the Acts of 1931 carried with it an item of \$400,000 for the construction and equipment of a reception building for the Boston State Hospital. This will be located in the West Group halfway between the administration building and the West G Building. Contracts for this building were awarded by the Department of Mental Diseases on September 1st as follows:

General Contract, (Griffin-Bordiere Co.) . . . . .	\$237,500.00
Plumbing, (J. S. Cassidy Inc.) . . . . .	27,880.00
Heating and Ventilating (R. H. Baker Co., Inc.) . . . . .	34,400.00
Electric Wiring (Sword Bros., Inc.) . . . . .	7,450.00

The work of excavation was commenced on September 14th, and the concrete foundation was finished on October 10th. Work was well under way at the end of the year, and it is hoped that the building can be occupied on or before October 1, 1932.

Chapter 420 of the Acts of 1930 authorized the Department of Public Works to construct a new highway running from the intersection of Blue Hill Avenue and Canterbury Street to a point on Washington Street near its intersection with the West Roxbury parkway. This highway will follow the line of Canterbury Street until it reaches the hospital entrance to the East Group, where it runs through the East Group grounds, crossing Morton Street, and running through the West Group grounds at a point approximately halfway between the West B Building and the farm buildings on Canterbury Street. There will be an overhead crossing on Morton Street with a clearance of fourteen feet. The contract for this work was awarded in October to John F. Kennedy & Company of Cambridge. It is a most unfortunate thing that neither the Department of Mental Diseases nor the Trustees of the hospital had any knowledge of this project before it was authorized by an Act of the legislature. It is almost inconceivable that such a thing should have been done without the hospital authorities' being consulted. No opportunity was given to enter a protest against any such highly undesirable invasion of the hospital property. It is hardly necessary to say that the extension of a public

highway through our grounds must inevitably interfere materially with the administration of the institution.

#### DEVELOPMENT OF THE HOSPITAL

There are many things which must be done at this institution if it is to be brought up to date and placed on a level with the best mental hospitals of the day.

The grounds are not properly lighted at night, and our employees, who have to walk long distances to get to the street car line, have been assaulted from time to time in the dark.

A complete system of roads and walks has never been installed, and the attendants working in the West Group cannot get to the car line at certain seasons of the year without walking through the mud or snow.

We have over 600 patients housed in five stucco buildings which are not fireproof, and constitute a menace to the safety of the hospital. These buildings have wooden floors, wooden stairways, an obsolete system of electric wiring, and cannot be equipped with effective means of fire protection. Shortly after the disastrous Scobey Hospital fire, the Fire Commissioner of the City of Boston recommended that "All old buildings, wooden and stucco, should be demolished and buildings of 1st class fireproof construction be erected in their stead."

One hundred and twenty-one employees are housed in the ward buildings, in the immediate proximity of patients, many of a noisy and violent type. Forty-seven of these employees are living in attics, some of which are unfinished in part and are not suitable for occupancy. They are, furthermore, living under conditions which would be highly undesirable, if not actually dangerous, in the event of fire. Buildings for the accommodation of these people should be provided for.

As a result of conditions representing various stages in the development of this institution, the power plant in the East Group furnishes the hospital with both direct and alternating current. Practically the entire East Group is furnished with direct current, and the West Group with alternating. The result is that we have to run two generators in the day time and two in the night, whereas one would otherwise be sufficient. Great economies could be effected by the erection of a new and modern type of power plant.

Attention should be called to the fact that this hospital has no centrally located assembly hall large enough to provide for the needs of the whole hospital and furnish our patients with proper facilities for religious services, moving picture shows, entertainments, etc.

The hospital has never had a laboratory building. It has had no building for industrial or occupational therapy, no suitable or adequate quarters for employees, and no separate accommodations for the care of tuberculous cases. To comply with the laws of the Commonwealth we need a paint shop in a separate building. We also need a new and larger greenhouse and a garage large enough to accommodate the cars and trucks belonging to the State, as well as to some of our medical officers and employees. Cottages should be erected for the steward, chief engineer, head farmer, various medical officers, etc.

In view of these facts, I would most respectfully suggest the advisability of starting upon some course of construction and development at this institution without any further loss of time. The procedure suggested is nothing more nor less than the completion of a program which should have been inaugurated and carried out many years ago. It is, of course, understood that this cannot all be done at once. For immediate consideration I would suggest the following:

*Building for 15 Women, 12 Married Couples, and West Group Offices:* Adequate accommodations have never been available for the employees in the West Group of the hospital, and the time has come when this situation should be remedied, while the cost of construction is so low. I regret to say that we still have nearly fifty people housed in the attics of the old stucco buildings. In the West C and D buildings these can be reached only by going through the wards. This arrangement has led to serious complications from time to time in the past. The rooms in these attics are not fit for occupancy and it is practically impossible to keep them free from vermin. It has been impossible to retain in the service for any length of time persons who are assigned to these attics for quarters. There

are nearly 125 employees living in ward buildings. The West G Building, for instance, which houses all of the noisy, destructive, and violent male patients in the West Group, has accommodations in the wards for seven male attendants. There are forty-eight employees in the West D Building, which was designed for the use of patients only. We have never had anything like sufficient accommodations for married people. It will, of course, be necessary to provide space for additional employees, both men and women, for the new reception building. For that reason, I would recommend a building for 45 women and 12 married couples, the first floor to be used for office space for the West Group. Our office accommodations in the old building erected by the City of Boston many years ago, are, and always have been, entirely inadequate, besides being in the wrong location. We propose to take advantage of the necessity of erecting new buildings for employees to remedy this situation. The building for 125 men will be necessary to house the male employees now living in attics and ward buildings.

*Road Construction:* There is an enormous amount of road building and grading to be done in the grounds of the Boston State Hospital. Practically no permanent roads have ever been constructed here. Owing to the fact that we have had so few able-bodied male patients that could work outside, grading that should have been finished years ago has not been completed as yet. No grading has been done around the East B Building, which was finished in 1911. We are getting so far behind that it has been felt necessary to ask for an appropriation for building roads. We have not been able as yet to do anything towards getting a road from Harvard Street to the entrance of the new East Group office building. There has never been anything more than a cinder road leading from the corner of Harvard and Morton Streets to the West Group, which houses over 1600 patients, nor has there even been any sidewalk leading to that group. The location of the new reception building will make it necessary to build a new road leading to the West Group buildings. In view of the fact that we have over 75,000 visitors at the hospital during the course of a year, it is felt that something should be done to provide easier access to our wards. The two roads in question mean about one mile of rather difficult construction. It would take us quite a number of years to do this work, which would mean neglecting many other things that cannot very well be overlooked. Although twice that amount would be necessary to build roads such as we should have, an appropriation of \$25,000 for this purpose would put us in a position to get a start on this construction and would be of very great assistance.

*Root Cellar.* No suitable vegetable storage has ever been provided for this institution. The space now used for this purpose in the basement of the East Group storehouse is entirely inadequate and always has been. It is, furthermore, not at all adapted to the purpose in question. Space for general storage is also much needed. The indications are at the present time that it will be necessary for us to rent space outside the institution for the storage of root crops. Under these circumstances, it would seem to be economical and advisable to provide accommodations at this time for the storage of vegetables and solve this problem for all time.

*Laboratory and Research Building.* We are badly in need of a laboratory and mortuary building. The only mortuary space we have, and that is far from being satisfactory, is a small addition to one of the ward buildings. It is not possible to conceive of any worse arrangement than this. The presence of hearses and undertakers' wagons in the immediate vicinity of ward buildings is highly undesirable. The only laboratory space that we have is in the basement of one of the East Group ward buildings. It is so low that the pathologists have complained frequently of the dampness, and have felt that it injured their health. We should have a new laboratory and mortuary building far removed from any of the ward buildings and located in such a way that it could be approached from one of the streets adjoining the hospital without necessitating the presence of hearses, undertakers' wagons, etc., in the neighborhood of any of our ward buildings, particularly those which house depressed patients.

During the last few years, some very important researches have been carried out in the wards of our hospital by the Department under the direction of Dr. Myerson. This work should be developed as rapidly as possible. It cannot be

done without some kind of facilities for laboratory space, and we feel that this should be taken care of in the building asked for.

It will be quite logical to combine the research work with our own laboratory accommodations. The mortuary should be in this building and all of the autopsies done there. These two purposes can be met by the building which we are asking for, although, if anything, it is planned on entirely too small a scale.

*Three Cottages for Physicians:* We have never had suitable accommodations for the members of the medical staff. Three of our married physicians are living in ward buildings in quarters which are far from being commodious. The presence of infant children renders this exceedingly difficult. I should hate to lose the services of these men, but cannot very seriously criticize them for looking for openings in some of the other hospitals in this State which do have comfortable quarters for doctors. In view of these facts, I feel that it is very necessary to build at least three cottages which should cost not less than \$10,000 each. It would be inadvisable, under the existing circumstances, for the hospital to do any of this construction, which should all be covered by contract.

Respectfully submitted,

JAMES V. MAY

*Superintendent.*

### VALUATION

November 30, 1931  
REAL ESTATE

Land, 236.517 acres . . . . .	\$709,508.00
Buildings . . . . .	2,887,197.94
	<hr/>
	\$3,596,705.94

### PERSONAL PROPERTY

Travel, transportation and office expenses . . . . .	\$717.66
Food . . . . .	22,422.07
Clothing and materials . . . . .	25,364.97
Furnishings and household supplies . . . . .	266,031.93
Medical and general care . . . . .	9,346.06
Heat, light and power . . . . .	6,199.20
Farm . . . . .	11,821.25
Garage, stables and grounds . . . . .	9,767.12
Repairs . . . . .	16,157.27
	<hr/>
	\$367,827.53

### SUMMARY

Real estate . . . . .	\$3,596,705.94
Personal property . . . . .	367,827.53
	<hr/>
	\$3,964,533.47

### FINANCIAL STATEMENT

*To the Department of Mental Diseases:*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1931.

### CASH ACCOUNT Receipts

<i>Income</i>	
Board of patients . . . . .	\$103,999.30
Personal Services:	
Reimbursement from Board of Retirement . . . . .	296.14
Sales:	
Travel, transportation and office expenses . . . . .	\$137.82
Food . . . . .	309.18
Clothing and materials . . . . .	11.49
Furnishings and household supplies . . . . .	27.90
Medical and general care . . . . .	6.00
Repairs, ordinary . . . . .	48.18
	<hr/>
Total Sales . . . . .	\$540.57
Miscellaneous:	
Interest on bank balances . . . . .	\$331.75
Rent . . . . .	120.00
	<hr/>
	451.75
Total Income . . . . .	<hr/>
	\$105,287.76

### MAINTENANCE

Balance from previous year, brought forward . . . . .	\$21,684.99
Appropriations, current year . . . . .	841,480.00
	<hr/>
Total . . . . .	\$863,164.99
Expenses (as analyzed below) . . . . .	798,343.33
	<hr/>
Balance reverting to Treasury of Commonwealth . . . . .	\$64,821.66



<i>Analysis of Expenses</i>	
Personal services . . . . .	\$435,342.35
Religious instruction . . . . .	2,079.98
Travel, transportation and office expenses . . . . .	7,441.41
Food . . . . .	164,524.11
Clothing and material . . . . .	26,055.65
Furnishings and household supplies . . . . .	34,413.68
Medical and general care . . . . .	36,743.20
Heat, light and power . . . . .	51,637.53
Farm . . . . .	6,164.47
Garage, stable and grounds . . . . .	8,529.91
Repairs, ordinary . . . . .	14,746.37
Repairs and renewals . . . . .	10,664.67
<b>Total expenses for Maintenance . . . . .</b>	<b>\$798,343.33</b>
<i>SPECIAL APPROPRIATIONS</i>	
Balance December 1, 1930 . . . . .	\$140,084.35
Appropriations for current year . . . . .	420,000.00
<b>Total . . . . .</b>	<b>\$560,084.35</b>
Expended during year (see statement below) . . . . .	\$175,906.25
Reverting to Treasury of Commonwealth . . . . .	1.33
	<b>175,907.58</b>
<b>Balance November 30, 1931, carried to next year . . . . .</b>	<b>\$384,176.77</b>

OBJECT	Act or Resolve	Whole Amount	Expended during Fiscal Year	Total Expended to Date	Balance at End of Year
Administration Building . . . . .	1928-127				
	1930-115	\$180,000.00	\$21,106.46	\$172,487.04	\$7,512.96
Sewer and Water Extension . . . . .	1928-127				
	1930-426	13,000.00	1,516.50	12,998.67	1.33*
Renewing of Steam Lines . . . . .	1929-146				
	1930-115	67,400.00	6,851.54	60,841.07	6,558.93
Employees' Building, Green- house, etc. . . . .	1931-460	163,000.00	91,749.46	153,212.83	9,787.17
Reception Building, equipment	1931-268	400,000.00	54,111.49	54,111.49	345,888.51
Erection of Fence . . . . .	1931-245	15,000.00	570.80	570.80	14,429.20
		<b>\$838,400.00</b>	<b>\$175,906.25</b>	<b>\$454,221.90</b>	<b>\$384,178.10</b>
Balance reverting to Treasury of the Commonwealth during year (mark item with *) . . . . .					\$1.33
Balance carried to next year . . . . .					384,176.77
<b>Total as above . . . . .</b>					<b>\$384,178.10</b>

## PER CAPITA

During the year the average number of inmates has been 2,169.09.

Total cost of maintenance, \$798,343.33.

Equal to a weekly per capita cost of \$7.0779.

Receipt from sales \$540.57.

Equal to a weekly per capita of \$.00479.

All other institution receipts, \$104,747.19.

Equal to a weekly per capita of \$.92867.

Net weekly per capita \$6.1445.

Respectfully submitted,  
ADELINE J. LEARY,

Treasurer.

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION  
PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

Data correct at end of hospital year, November 30, 1931

1. Date of opening as a hospital for mental diseases, December 11, 1839.
2. Type of hospital: State since December 1, 1908.
3. Hospital plant:

Value of hospital property:

Real estate, including buildings, . . . . .	\$3,596,705.94
Personal property . . . . .	367,827.53

Total . . . . .

\$3,964,533.47

Total acreage of hospital property owned, 236.517 acres.

Total acreage under cultivation during previous year, 131.74 acres

## 4. Officers and Employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	1	—	1	—	—	—
Assistant Superintendent . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	5	5½	10½	1	½	1½
Senior Physician (Pathologist) . . . . .	—	1	1	—	—	—
Total physicians . . . . .	7	6½	13½	1	½	1½
Stewards . . . . .	1	—	1	—	—	—
Resident dentists . . . . .	1	—	1	—	—	—
Pharmacists . . . . .	1	—	1	—	—	—
Graduate nurses . . . . .	—	20	20	—	—	—
Other nurses and attendants . . . . .	106	119	225	13	8	21
Occupational therapists . . . . .	—	10	10	—	1	1
Social Workers . . . . .	—	4	4	—	1	1
All other officers and employees . . . . .	91	87	178	½	—	½
Total officers and employees . . . . .	207	246½	453½	13½	10½	24

NOTE: — The following items, 5-8 inclusive, are for the year ending September 30, 1931.

## 5. Census of Patient Population at end of year:

	Actually in Hospital			Absent from Hospital but Still on Books		
	M.	F.	T.	M.	F.	T.
White:						
Insane . . . . .	860	1,184	2,044	72	104	176
Mental defectives . . . . .	3	7	10	—	—	—
All other cases . . . . .	6	3	9	2	—	2
Total . . . . .	869	1,194	2,063	74	104	178
Other Races:						
Insane . . . . .	26	36	62	4	2	6
All other cases . . . . .	—	2	2	—	—	—
Total . . . . .	26	38	64	4	2	6
Grand Total . . . . .	895	1,232	2,127	78	106	184
			M.		F.	T.
6. Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .			88		196	284
7. Other patients employed in general work of hospital on date of report . . . . .			474		346	820
8. Average daily number of all patients actually in hospital during year . . . . .			938.11		1,248.68	2,186.79

TABLE 2. *Financial Statement.*

See Treasurer's report for data requested under this table.

NOTE: — The following tables 3-19, inclusive, are for the Statistical year ended September 30, 1931.

TABLE 3. *Movement of Patient Population*

	REGULAR COURT COMMITMENT (INSANE)			VOLUNTARY			TEMPORARY CARE			OBSERVATION			TOTAL ON BOOKS		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of Institution September 30, 1930 . . . . .	1,053	1,396	2,449	-	-	-	-	-	-	16	6	22	1,069	1,402	2,471
Admissions during year:															
First Admissions . . . . .	179	250	429	-	-	-	46	35	81	19	5	24	244	290	534
Readmissions . . . . .	41	40	81	-	-	-	12	15	27	25	10	35	78	65	143
Transfers from other hospitals for mental diseases . . . . .	14	15	29	-	-	-	-	-	-	-	-	-	14	15	29
Total received during year . . . . .	234	305	539	-	-	-	58	50	108	44	15	59	336	370	706
Total on books during year . . . . .	1,287	1,701	2,988	-	-	-	58	50	108	60	21	81	1,405	1,772	3,177
Discharged from books during year:															
As recovered . . . . .	18	38	56	-	-	-	3	2	5	5	4	9	26	44	70
As improved . . . . .	48	56	104	-	-	-	5	4	9	7	-	7	60	60	120
As unimproved . . . . .	11	15	26	-	-	-	34	30	64	6	2	8	51	47	98
As without psychosis . . . . .	-	5	5	-	-	-	9	8	17	23	8	31	32	21	53
Transferred to other hospitals for mental diseases . . . . .	113	109	222	-	-	-	-	-	-	-	-	-	113	109	222
Died during year . . . . .	141	146	287	-	-	-	6	5	11	3	2	5	150	153	303
Total discharged, transferred and died during year . . . . .	331	369	700	-	-	-	57	49	106	44	16	60	432	434	866
Insane patients remaining on books of hospital at end of hospital year:															
In hospital. . . . .	878	1,226	2,104	-	-	-	1	1	2	16	5	21	895	1,232	2,127
On parole or otherwise absent . . . . .	78	106	184	-	-	-	-	-	-	-	-	-	78	106	184
Total . . . . .	956	1,332	2,288	-	-	-	1	1	2	16	5	21	973	1,338	2,311

TABLE 4. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States . . . . .	101	131	232	31	29	24	52	53	44
Austria . . . . .	2	3	5	2	2	2	3	3	3
Belgium . . . . .	—	1	1	—	—	—	1	1	1
Canada <sup>1</sup> . . . . .	14	30	44	12	13	9	26	29	22
China . . . . .	1	—	1	1	1	1	—	—	—
Cuba . . . . .	—	1	1	—	—	—	—	1	—
Denmark . . . . .	—	1	1	—	—	—	—	1	—
England . . . . .	5	2	7	6	3	3	6	2	2
France . . . . .	—	—	—	1	—	—	—	—	—
Germany . . . . .	3	3	6	5	7	5	9	9	7
Greece . . . . .	2	—	2	2	2	2	—	—	—
Holland . . . . .	—	—	—	1	—	—	—	—	—
Ireland . . . . .	27	43	70	64	63	58	81	80	70
Italy . . . . .	7	13	20	16	16	16	16	16	16
Norway . . . . .	1	2	3	1	1	1	2	2	2
Poland . . . . .	2	2	4	4	3	3	2	2	2
Portugal . . . . .	1	—	1	1	1	1	1	—	—
Russia . . . . .	8	7	15	11	12	11	11	10	10
Scotland . . . . .	3	2	5	2	4	2	2	1	1
Spain . . . . .	—	1	1	—	—	—	1	1	1
Sweden . . . . .	—	1	1	2	1	1	6	5	5
Switzerland . . . . .	—	—	—	—	—	—	1	1	1
Wales . . . . .	—	—	—	—	1	—	—	—	—
West Indies <sup>2</sup> . . . . .	—	1	1	1	1	1	1	1	1
Other countries . . . . .	2	3	5	2	2	2	5	5	5
Unascertained . . . . .	—	3	3	14	17	14	24	27	23
Total . . . . .	179	250	429	179	179	156	250	250	216

<sup>1</sup>Includes Newfoundland.<sup>2</sup>Except Cuba and Porto Rico



TABLE 5. *Citizenship of First Admissions*

	Males	Females	Total
Citizens by birth . . . . .	101	131	232
Citizens by naturalization . . . . .	44	56	100
Aliens . . . . .	18	34	52
Citizenship unascertained . . . . .	16	29	45
Total . . . . .	179	250	429

TABLE 6. *Psychoses of First Admissions*

PSYCHOSES	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses . . . . .				3	1	4
2. Senile psychoses . . . . .				5	38	43
3. Psychoses with cerebral arteriosclerosis . . . . .				72	84	156
4. General paralysis . . . . .				14	6	20
5. Psychoses with cerebral syphilis . . . . .				—	—	—
6. Psychoses with Huntington's chorea . . . . .				—	—	—
7. Psychoses with brain tumor . . . . .				1	—	1
8. Psychoses with other brain or nervous diseases, total . . . . .				7	1	8
Paralysis agitans . . . . .	2	—	2			
Meningitis, tubercular or other forms . . . . .	2	—	2			
Other diseases . . . . .	3	1	4			
9. Alcoholic psychoses, total . . . . .				12	6	18
Korsakow's psychosis . . . . .	1	3	4			
Acute hallucinosis . . . . .	3	2	5			
Other types, acute or chronic . . . . .	8	1	9			
10. Psychoses due to drugs and other exogenous toxins, total . . . . .				2	1	3
Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined . . . . .	1	1	2			
Other exogenous toxins . . . . .	1	—	1			
11. Psychoses with pellagra . . . . .				1	—	1
12. Psychoses with other somatic diseases, total . . . . .				3	6	9
Post-infectious psychosis . . . . .	—	1	1			
Delirium of unknown origin . . . . .	—	1	1			
Cardio-renal diseases . . . . .	2	—	2			
Other diseases or conditions . . . . .	1	4	5			
13. Manic-depressive psychoses, total . . . . .				37	49	86
Manic type . . . . .	5	16	21			
Depressive type . . . . .	27	16	43			
Other types . . . . .	5	17	22			
14. Involution melancholia . . . . .				5	5	10
15. Dementia praecox (schizophrenia) . . . . .				4	17	21
16. Paranoia and paranoid conditions . . . . .				3	12	15
17. Epileptic psychoses . . . . .				1	4	5
18. Psychoneuroses and neuroses, total . . . . .				1	2	3
Hysterical type . . . . .	—	1	1			
Neurasthenic type . . . . .	—	1	1			
Other types . . . . .	1	—	1			
19. Psychoses with psychopathic personality . . . . .				—	4	4
20. Psychoses with mental deficiency . . . . .				7	11	18
21. Undiagnosed psychoses . . . . .				—	2	2
22. Without psychosis, total . . . . .				1	1	2
Mental deficiency without psychosis . . . . .	1	—	1			
Others . . . . .	—	1	1			
Total . . . . .				179	250	429

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			Traumatic			Senile			With cerebral arterio-sclerosis			General paralysis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	7	15	22	—	—	—	—	2	2	3	6	9	2	1	3
Armenian	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
Chinese	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
English	3	13	16	—	—	—	—	1	1	1	—	1	—	—	—
French	1	1	2	—	—	—	—	—	—	1	—	1	—	—	—
German	6	9	15	—	—	—	—	3	3	2	5	7	1	—	1
Greek	2	1	3	—	—	—	—	—	—	—	—	—	1	—	1
Hebrew	14	14	28	—	—	—	1	—	1	6	1	7	—	—	—
Irish	63	91	154	3	1	4	2	12	14	27	34	61	2	1	3
Italian <sup>1</sup>	16	16	32	—	—	—	—	4	4	2	3	5	2	—	2
Lithuanian	2	1	3	—	—	—	—	—	—	—	—	—	1	—	1
Magyar	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1
Portuguese	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	2	7	9	—	—	—	—	—	—	1	1	2	1	—	1
Scotch	2	1	3	—	—	—	1	—	1	—	1	1	—	—	—
Slavonic <sup>3</sup>	1	2	3	—	—	—	—	—	—	1	—	1	—	—	—
Spanish	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Syrian	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races	—	3	5	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	55	68	123	—	—	—	1	15	16	28	31	59	4	3	7
Race unascertained	—	3	3	—	—	—	—	1	1	—	2	2	—	—	—
Total	179	250	429	3	1	4	5	38	43	72	84	156	14	6	20

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued.*

RACE	With brain tumor			With other brain or nervous diseases			Alcoholic			Due to drugs and other exogenous toxins			With pellagra		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Armenian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Irish	1	—	1	3	—	3	8	2	10	—	1	1	—	—	—
Italian <sup>1</sup>	—	—	—	1	—	1	—	—	—	1	—	1	—	—	—
Lithuanian	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Magyar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Spanish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races	—	—	—	1	—	1	1	—	1	—	—	—	—	—	—
Mixed	—	—	—	2	1	3	2	3	5	1	—	1	1	—	1
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1	—	1	7	1	8	12	6	18	2	1	3	1	—	1

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued.*

RACE	With other somatic diseases			Manic- depressive			Involution melancholia			Dementia praecox			Paranoia and paranoid conditions		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	2	2	4	—	—	—	2	2	—	—	—	—
Armenian	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Chinese	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
English	—	—	—	1	3	4	1	1	2	—	—	—	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
Greek	—	—	—	1	—	1	—	—	—	—	—	—	—	1	1
Hebrew	—	—	—	4	8	12	—	—	—	1	1	—	4	4	4
Irish	—	5	5	10	19	29	2	—	2	2	9	11	1	6	7
Italian <sup>1</sup>	—	—	—	8	6	14	—	1	1	1	—	1	1	—	1
Lithuanian	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Magyar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	1	2	3	—	1	1	—	1	1	—	—	—
Scotch	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Spanish	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Syrian	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Other specific races	—	—	—	—	2	2	—	—	—	1	1	—	—	—	—
Mixed	1	1	2	8	4	12	1	1	2	1	2	3	1	1	2
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3	6	9	37	49	86	5	5	10	4	17	21	3	12	15

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Epileptic psychoses			Psycho- neuroses and neuroses			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	—	—
Armenian	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—
Chinese	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—
English	—	—	—	—	1	1	—	2	2	—	5	5	—	—	—	—	—	—
French	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
German	—	—	—	—	—	—	—	1	1	1	—	1	—	—	—	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	—	—	—	3	—	3	—	—	—	—	—	—
Irish	1	1	2	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Italian <sup>1</sup>	—	—	—	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Magyar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spanish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	—	3	3	1	—	1	—	—	—	2	2	4	—	—	—	1	1	2
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1	4	5	1	2	3	—	4	4	7	11	18	—	2	2	1	1	2

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montereigrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.



TABLE 8. Age of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years			25-29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	5	38	43	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	72	84	156	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	14	6	20	-	-	-	1	1	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	7	1	8	-	-	-	1	-	1	-	-	-	1	-	1
9. Alcoholic . . . . .	12	6	18	-	-	-	-	-	-	-	-	-	2	-	2
10. Due to drugs and other exogenous toxins . . . . .	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1
12. With other somatic diseases . . . . .	3	6	9	-	-	-	-	-	-	-	-	-	-	1	1
13. Manic-depressive . . . . .	37	49	86	-	-	-	4	7	11	7	7	14	3	6	9
14. Involution melancholia . . . . .	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	4	17	21	-	-	-	-	-	-	2	1	3	2	2	4
16. Paranoia and paranoid conditions . . . . .	3	12	15	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	1	4	5	-	1	1	-	-	-	-	-	-	-	1	1
18. Psychoneuroses and neuroses . . . . .	1	2	3	-	-	-	1	1	-	-	-	-	1	-	1
19. With psychopathic personality . . . . .	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	7	11	18	-	1	1	2	1	3	2	2	4	-	-	-
21. Undiagnosed psychoses . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	1	1
22. Without psychosis . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	179	250	429	-	2	2	7	10	17	11	10	21	10	11	21

TABLE 8. Age of First Admissions Classified with Reference to Principal Psychoses — Continued

PSYCHOSES	30-34 years			35-39 years			40-44 years			45-49 years			50-54 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	1	1	-	2	3	5
4. General paralysis . . . . .	1	1	2	2	-	2	2	-	2	2	2	4	1	1	2
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
8. With other brain or nervous diseases . . . . .	-	-	-	1	-	1	1	-	1	-	-	-	1	1	2
9. Alcoholic . . . . .	3	-	3	-	1	1	3	-	3	1	2	3	1	2	3
10. Due to drugs and other exogenous toxins . . . . .	1	-	1	1	-	1	-	-	-	1	1	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	-	-	-	-	-	-	-	-	1	1	-	2	1	3
13. Manic-depressive . . . . .	5	5	10	3	7	10	3	11	14	2	2	4	3	1	4
14. Involution melancholia . . . . .	-	-	-	-	1	1	-	1	1	-	1	1	-	-	1
15. Dementia praecox . . . . .	-	3	3	-	4	4	-	4	4	-	1	1	-	1	1
16. Paranoia and paranoid conditions . . . . .	-	2	2	-	1	1	-	2	2	-	2	2	-	1	1
17. Epileptic psychoses . . . . .	-	-	-	-	1	1	-	-	-	1	1	2	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
19. With psychopathic personality . . . . .	-	-	-	-	3	3	-	-	-	-	-	-	-	1	1
20. With mental deficiency . . . . .	-	3	3	-	1	1	-	2	2	1	-	1	1	-	1
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
22. Without psychosis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	11	14	25	7	19	26	9	21	30	7	15	22	13	14	27

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	55-59 years			60-64 years			65-69 years			70 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	2	—	2	1	—	1	—	—	—
2. Senile . . . . .	—	—	—	1	2	3	2	7	9	2	28	30
3. With cerebral arteriosclerosis . . . . .	4	5	9	14	10	24	14	13	27	38	52	90
4. General paralysis . . . . .	2	1	3	1	—	1	1	—	1	2	—	2
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	1	—	1	1	—	1	—	—	—
9. Alcoholic . . . . .	2	1	3	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	2	2	1	1	2	—	—	—	—	—	—
13. Manic-depressive . . . . .	3	1	4	2	—	2	1	—	1	1	2	3
14. Involution melancholia . . . . .	4	2	6	—	—	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	—	1	1	—	—	—	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	2	4	6	—	—	—	—	—	—	1	—	1
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	1	1	1	—	1	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	1	—	1
Total . . . . .	17	18	35	23	13	26	20	20	40	44	83	127

TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses.

Psychoses	Total		Illiterate		Reads and writes <sup>1</sup>		Common school		High school		College	Unascertained
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
1. Traumatic . . . . .	3	1	4	T.								
2. Senile . . . . .	5	38	43									
3. With cerebral arteriosclerosis . . . . .	72	84	156									
4. General paralysis . . . . .	14	6	20									
5. With cerebral syphilis . . . . .												
6. With Huntington's chorea . . . . .												
7. With brain tumor . . . . .												
8. With other brain or nervous diseases . . . . .	1	1	8									
9. Alcoholic . . . . .	12	16	18									
10. Due to drugs and other exogenous toxins . . . . .	2	1	3									
11. With pellagra . . . . .	1	1	1									
12. With other somatic diseases . . . . .	3	6	9									
13. Manic-depressive . . . . .	37	49	86									
14. Involution melancholia . . . . .	5	5	10									
15. Dementia praecox . . . . .	4	17	21									
16. Paranoia and paranoid conditions . . . . .	3	12	15									
17. Epileptic psychoses . . . . .	1	4	5									
18. Psychoneuroses and neuroses . . . . .	1	2	3									
19. With psychopathic personality . . . . .		4	4									
20. With mental deficiency . . . . .	7	11	18									
21. Undiagnosed psychoses . . . . .		2	2									
22. Without psychosis . . . . .	1	1	2									
Total . . . . .	179	250	429									
			9	26	35	11	23	34	31	37	68	8 25 33

<sup>1</sup>Includes those who did not complete fourth grade in school.

TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Urban		
	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	3	1	4	3	1	4
2. Senile . . . . .	5	38	43	5	38	43
3. With cerebral arteriosclerosis . . . . .	72	84	156	72	84	156
4. General paralysis . . . . .	14	6	20	14	6	20
5. With cerebral syphilis . . . . .	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—
7. With brain tumor . . . . .	1	—	1	1	—	1
8. With other brain or nervous diseases . . . . .	7	1	8	7	1	8
9. Alcoholic . . . . .	12	6	18	12	6	18
10. Due to drugs and other exogenous toxins . . . . .	2	1	3	2	1	3
11. With pellagra . . . . .	1	—	1	1	—	1
12. With other somatic diseases . . . . .	3	6	9	3	6	9
13. Manic-depressive . . . . .	37	49	86	37	49	86
14. Involution melancholia . . . . .	5	5	10	5	5	10
15. Dementia praecox . . . . .	4	17	21	4	17	21
16. Paranoia and paranoid conditions . . . . .	3	12	15	3	12	15
17. Epileptic psychoses . . . . .	1	4	5	1	4	5
18. Psychoneuroses and neuroses . . . . .	1	2	3	1	2	3
19. With psychopathic personality . . . . .	—	4	4	—	4	4
20. With mental deficiency . . . . .	7	11	18	7	11	18
21. Undiagnosed psychoses . . . . .	—	2	2	—	2	2
22. Without psychosis . . . . .	1	1	2	1	1	2
Total . . . . .	179	250	429	179	250	429

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Dependent			Marginal			Comfortable			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	3	1	4	—	—	—	3	1	4	—	—	—	—	—	—
2. Senile . . . . .	5	38	43	—	12	12	5	24	29	—	—	—	—	2	2
3. With cerebral arteriosclerosis . . . . .	72	84	156	13	15	28	56	62	118	1	—	1	2	7	9
4. General paralysis . . . . .	14	6	20	1	1	2	13	5	18	—	—	—	—	—	—
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	7	1	8	3	—	3	4	1	5	—	—	—	—	—	—
9. Alcoholic . . . . .	12	6	18	—	—	—	12	6	18	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	2	1	3	1	—	1	1	1	2	—	—	—	—	—	—
11. With pellagra . . . . .	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	3	6	9	—	—	—	3	6	9	—	—	—	—	—	—
13. Manic-depressive . . . . .	38	49	86	2	10	12	35	39	74	—	—	—	—	—	—
14. Involution melancholia . . . . .	5	5	10	—	1	1	5	4	9	—	—	—	—	—	—
15. Dementia praecox . . . . .	4	17	21	—	3	3	4	14	18	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	3	12	15	—	2	2	3	9	12	—	1	1	—	—	—
17. Epileptic psychoses . . . . .	1	4	5	—	2	2	1	2	3	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	2	3	—	2	2	1	—	1	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	4	4	—	—	—	—	4	4	—	—	—	—	—	—
20. With mental deficiency . . . . .	7	11	18	3	7	10	4	4	8	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—
22. Without psychosis . . . . .	1	1	2	1	—	1	—	1	1	—	—	—	—	—	—
Total . . . . .	179	250	429	25	55	80	151	185	336	1	1	2	2	9	11

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	3	1	4	—	—	—	2	—	2	1	1	2	—	—	—
2. Senile . . . . .	5	38	43	2	19	21	3	4	7	—	1	1	—	14	14
3. With cerebral arterio-sclerosis . . . . .	72	84	156	22	55	77	25	10	35	17	3	20	8	16	24
4. General paralysis . . . . .	14	6	20	5	2	7	5	3	8	3	—	3	1	1	2
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
8. With other brain or nervous diseases . . . . .	7	1	8	4	—	4	1	1	2	1	—	1	1	—	1
9. Alcoholic . . . . .	12	6	18	—	—	—	—	—	—	12	6	18	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	2	1	3	—	—	—	1	—	1	1	1	2	—	—	—
11. With pellagra . . . . .	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
12. With other somatic diseases . . . . .	3	6	9	2	4	6	—	1	1	—	1	1	1	—	1
13. Manic-depressive . . . . .	37	49	86	17	28	45	14	19	33	6	1	7	—	1	1
14. Involution melancholia . . . . .	5	5	10	2	3	5	3	1	4	—	—	—	—	1	1
15. Dementia præcox . . . . .	4	17	21	3	9	12	1	7	8	—	—	—	—	1	1
16. Paranoia and paranoid conditions . . . . .	3	12	15	—	8	8	2	2	4	1	1	2	—	1	1
17. Epileptic psychoses . . . . .	1	4	5	—	4	4	—	—	—	1	—	1	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	2	3	—	1	1	—	1	1	1	—	1	—	—	—
19. With psychopathic personality . . . . .	—	4	4	—	1	1	—	3	3	—	—	—	—	—	—
20. With mental deficiency . . . . .	7	11	18	6	6	12	—	5	5	1	—	1	—	—	—
21. Undiagnosed psychoses . . . . .	—	2	2	—	1	1	—	1	1	—	—	—	—	—	—
22. Without psychosis . . . . .	1	1	2	1	1	2	—	—	—	—	—	—	—	—	—
Total . . . . .	179	250	429	64	142	206	57	58	115	47	15	62	11	35	46

TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses.*

	PSYCHOSES													
	Total		Single		Married		Widowed		Separated		Divorced			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
1. Traumatic . . . . .	3	1	—	—	3	1	—	—	—	—	—	—		
2. Senile . . . . .	5	38	2	13	3	3	—	—	—	—	—	—		
3. With cerebral arteriosclerosis . . . . .	72	84	13	19	32	7	22	22	—	—	—	—		
4. General paralysis . . . . .	14	6	5	1	5	3	4	5	—	—	3	2		
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—		
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—		
7. With brain tumor . . . . .	1	—	—	—	—	—	—	—	—	—	—	—		
8. With other brain or nervous diseases . . . . .	7	1	1	—	—	—	—	—	—	—	—	—		
9. Alcoholic . . . . .	12	6	5	—	2	—	—	—	—	—	—	—		
10. Due to drugs and other exogenous toxins . . . . .	2	1	—	—	—	—	—	—	—	—	—	—		
11. With pellagra . . . . .	1	—	—	—	—	—	—	—	—	—	—	—		
12. With other somatic diseases . . . . .	3	6	1	—	2	—	1	3	—	—	—	—		
13. Manic-depressive . . . . .	37	49	27	26	8	21	2	2	—	—	—	—		
14. Involution melancholia . . . . .	5	5	2	3	3	2	2	2	—	—	—	—		
15. Dementia praecox . . . . .	4	17	4	7	3	9	—	—	—	—	—	—		
16. Paranoia and paranoid conditions . . . . .	3	12	—	3	3	8	—	—	—	—	—	—		
17. Epileptic psychoses . . . . .	1	4	—	4	1	—	—	—	—	—	—	—		
18. Psychoneuroses and neuroses . . . . .	1	2	1	1	1	—	—	—	—	—	—	—		
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—		
20. With mental deficiency . . . . .	7	11	7	8	—	2	—	—	—	—	—	—		
21. Undiagnosed psychoses . . . . .	—	2	—	2	—	3	—	—	—	—	—	—		
22. Without psychosis . . . . .	1	1	1	—	—	—	—	—	—	—	—	—		
Total . . . . .	179	250	75	90	70	66	29	88	—	2	5	4		
		429	165	117	136	117								

TABLE 14. *Psychoses of Readmissions*

PSYCHOSES	Males	Females	Total
1. Traumatic psychoses . . . . .	—	—	—
2. Senile psychoses . . . . .	—	2	2
3. Psychoses with cerebral arteriosclerosis . . . . .	2	2	4
4. General paralysis . . . . .	2	1	3
5. Psychoses with cerebral syphilis . . . . .	—	—	—
6. Psychoses with Huntington's chorea . . . . .	—	—	—
7. Psychoses with brain tumor . . . . .	—	—	—
8. Psychoses with other brain or nervous diseases . . . . .	—	1	1
9. Alcoholic psychoses . . . . .	5	1	6
10. Psychoses due to drugs and other exogenous toxins . . . . .	—	1	1
11. Psychoses with pellagra . . . . .	—	—	—
12. Psychoses with other somatic diseases . . . . .	1	—	1
13. Manic-depressive . . . . .	19	17	36
14. Involution melancholia . . . . .	—	—	—
15. Dementia praecox . . . . .	4	7	11
16. Paranoia and paranoid conditions . . . . .	1	—	1
17. Epileptic psychoses . . . . .	—	—	—
18. Psychoneuroses and neuroses . . . . .	2	—	2
19. Psychoses with psychopathic personality . . . . .	1	2	3
20. Psychoses with mental deficiency . . . . .	3	3	6
21. Undiagnosed psychoses . . . . .	1	1	2
22. Without psychosis . . . . .	—	2	2
Total . . . . .	41	40	81

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	—	—	—	2	—	2	—	—	—
2. Senile . . . . .	—	6	6	—	—	—	—	5	5	—	1	1
3. With cerebral arteriosclerosis . . . . .	14	11	25	—	1	1	10	6	16	4	4	8
4. General paralysis . . . . .	6	—	6	—	—	—	3	—	3	3	—	3
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	2	4	6	—	—	—	2	1	3	—	3	3
9. Alcoholic . . . . .	12	6	18	8	4	12	4	2	6	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	3	3	—	3	3	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	5	6	—	4	4	1	1	2	—	—	—
13. Manic-depressive . . . . .	18	39	57	8	22	30	9	16	25	1	1	2
14. Involution melancholia . . . . .	—	7	7	—	1	1	—	5	5	—	1	1
15. Dementia praecox . . . . .	7	6	13	—	—	—	4	5	9	3	1	4
16. Paranoia and paranoid conditions . . . . .	2	8	10	—	—	—	2	7	9	—	1	1
17. Epileptic psychoses . . . . .	1	1	2	—	—	—	1	1	2	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	1	2	1	—	1	—	1	1	—	—	—
19. With psychopathic personality . . . . .	1	1	2	—	1	1	1	—	1	—	—	—
20. With mental deficiency . . . . .	7	7	14	—	2	2	7	4	11	—	1	1
21. Undiagnosed psychoses . . . . .	3	4	7	1	—	1	2	2	4	—	2	2
22. Without psychosis . . . . .	—	5	5	—	—	—	—	—	—	—	—	—
Total . . . . .	77	114	191	18	38	56	48	56	104	11	15	26

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses

CAUSES OF DEATH	Total			Senile			With cerebral arterio-sclerosis			General paralysis			Alcoholic			Manic-depressive		
	Total			Senile			With cerebral arterio-sclerosis			General paralysis			Alcoholic			Manic-depressive		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious Diseases</i>																		
Tuberculosis of the respiratory system . . . . .	19	7	26	1	—	1	3	—	3	1	—	1	2	1	3	2	—	2
<i>General Diseases not Included in Class I</i>																		
Cancer and other malignant tumors . . . . .	7	4	11	—	1	1	1	2	3	1	1	2	1	—	1	—	—	—
Other general diseases . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Nervous System</i>																		
Cerebral hemorrhage, apoplexy . . . . .	2	3	5	—	—	—	1	1	2	—	—	—	—	—	—	1	1	1
General paralysis of the insane . . . . .	19	8	27	—	—	—	—	—	—	19	8	27	—	—	—	—	—	—
Other forms of mental disease . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Epilepsy . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of the nervous system . . . . .	2	—	2	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
<i>Diseases of the Circulatory System</i>																		
Endocarditis and myocarditis . . . . .	33	67	100	3	19	22	18	32	50	—	—	—	3	4	7	2	5	7
Arteriosclerosis . . . . .	3	12	15	1	1	2	1	9	10	—	—	—	—	—	—	1	—	1
Other diseases of the circulatory system . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Respiratory System</i>																		
Bronchitis . . . . .	1	1	2	—	1	1	1	—	1	—	—	—	—	—	—	—	—	—
Bronchopneumonia . . . . .	37	27	64	6	7	13	24	13	37	—	—	—	2	1	3	1	1	2
Lobar pneumonia . . . . .	2	6	8	1	2	3	1	2	3	—	—	—	—	—	—	—	—	—
<i>Diseases of the Digestive System</i>																		
Ulcer of stomach and duodenum . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diarrhea and enteritis . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hernia and intestinal obstruction . . . . .	2	—	2	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Cirrhosis of liver . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of liver . . . . .	2	—	2	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—
<i>Non-Veneral Diseases of the Genito-Urinary System and Anæmia</i>																		
Nephritis . . . . .	7	3	10	1	2	3	3	—	3	—	—	—	1	—	1	—	—	—
<i>External Causes</i>																		
Suicide . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Accidental traumatism . . . . .	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other external causes . . . . .	1	1	2	—	2	2	1	—	1	—	—	—	—	—	—	—	—	—
Total . . . . .	141	146	287	13	36	49	58	60	118	21	9	30	9	7	16	7	7	14



TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses — Concluded.

CAUSES OF DEATH	Involution melancholia		Dementia praecox		Paranoia and paranoid conditions		Epileptic psychoses		Psycho-neuroses and neuroses		With mental deficiency		All other psychoses			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
<i>Epidemic, Endemic and Infectious Diseases</i>																
Tuberculosis of the respiratory system . . . . .	1	—	1	6	3	9	—	1	1	—	—	—	—	1	1	3
<i>General Diseases not Included in Class I</i>																
Cancer and other malignant tumors . . . . .	—	—	—	3	—	3	—	—	—	—	—	—	—	1	—	—
Other general diseases . . . . .	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Nervous System</i>																
Cerebral hemorrhage, apoplexy . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General paralysis of the insane . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other forms of mental disease . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Epilepsy . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of the nervous system . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
<i>Diseases of the Circulatory System</i>																
Endocarditis and myocarditis . . . . .	1	1	2	2	4	6	—	1	1	—	—	—	1	1	2	3
Arteriosclerosis . . . . .	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—
Other diseases of the circulatory system . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Respiratory System</i>																
Bronchitis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bronchopneumonia . . . . .	—	—	—	1	2	3	—	1	1	—	—	—	1	—	2	4
Lobar pneumonia . . . . .	—	—	—	—	1	1	—	—	—	—	—	—	—	—	1	1
<i>Diseases of the Digestive System</i>																
Ulcer of stomach and duodenum . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diarrhea and enteritis . . . . .	—	—	—	—	1	1	—	—	—	—	—	—	—	—	1	1
Hernia and intestinal obstruction . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cirrhosis of liver . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Other diseases of liver . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Non-Veneral Diseases of Genito-Urinary System and Anæmia</i>																
Nephritis . . . . .	—	—	—	—	1	1	—	—	—	—	—	2	—	2	—	—
<i>External Causes</i>																
Suicide . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Accidental traumatism . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other external causes . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	2	1	3	13	12	25	—	5	5	2	—	2	1	—	1	1

<sup>1</sup>Includes group 22, "Without psychosis."







TABLE 18. Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses — Concluded

PSYCHOSES	5-6 years			7-8 years			9-10 years			11-12 years			13-14 years			15-19 years			20 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	3	3	1	1	2	-	1	-	1	-	1	-	1	-	-	3	3	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	4	3	7	-	1	-	-	1	1	-	-	-	-	-	-	-	-	-	1	1
4. General paralysis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	1	1	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	1	-	1	1	1	1	-	1	1	1	2	1	3	1	1	1	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive . . . . .	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1	1	-
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	1	1	2	2	1	2	1	1	1	2	2	2	4	1	1	3	1	4	3	7	10
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	1	-	1	-	-	-	-	-	-	-	-	2	1	3	-	-	-	-	1	-	1
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	7	8	15	7	2	9	3	4	7	7	4	11	3	2	5	4	8	12	4	11	15

TABLE 19. *Family Care Department*

	Males	Females	Total
Remaining in Family Care September 30, 1930 . . . . .	—	9	9
On visit from Family Care September 30, 1930 . . . . .	—	—	—
Admitted during the year . . . . .	—	11	11
Whole number of cases within the year . . . . .	—	20	20
Dismissed within the year . . . . .	—	5	5
Returned to institution . . . . .	—	5	5
Discharged . . . . .	—	—	—
On visit . . . . .	—	—	—
Returned from visit . . . . .	—	—	—
Discharged from visit from Family Care . . . . .	—	—	—
Remaining in Family Care September 30, 1931 . . . . .	—	15	15
On visit from Family Care September 30, 1931 . . . . .	—	—	—
Number of different persons within the year . . . . .	—	18	18
Number of different persons admitted . . . . .	—	9	9
Number of different persons discharged . . . . .	—	5	5
Average daily number in Family Care during year . . . . .	—	12.45	12.45
Supported by State . . . . .	—	11.02	11.02
Reimbursing . . . . .	—	.30	.30
Private . . . . .	—	.04	.04
Self-supporting . . . . .	—	1.09	1.09
Average daily number on visit from Family Care during year . . . . .	—	—	—

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COLL.

The Commonwealth of Massachusetts

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## ANNUAL REPORT

OF THE

## TRUSTEES

OF THE

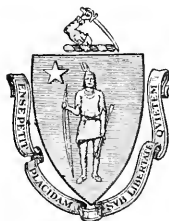
## BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1932

THE NINETY-SECOND ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION ON ADMINISTRATION AND FINANCE  
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OCCUPATIONAL PRINTING PLANT  
DEPARTMENT OF MENTAL DISEASES  
GARDNER STATE COLONY  
GARDNER, MASS.

## BOSTON STATE HOSPITAL

[Post Office Address: Dorchester Center, Mass.]

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### TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council:*

The Trustees of the Boston State Hospital have the honor to submit herewith their twenty-fourth annual report covering the year ended November 30, 1932.

The Trustees have maintained their usual monthly inspections of the hospital and have found it at all times to be in a satisfactory condition and that the officers and employees are giving considerate attention to the care and welfare of the patients. The details of the operations of the year are included in the reports of the Superintendent and Treasurer, which are appended herewith.

The Trustees have approved of the appointment of Dr. Luther F. Grant as assistant physician in the place of Dr. Joseph Hahn, who had resigned in June.

In November Miss Adeline J. Leary, the Treasurer of the hospital, reached the age of retirement, after thirty-five years of faithful service in the hospital, having filled the office of treasurer for the last thirteen years. The Trustees have appointed

\*Retired November 29, 1932.

\*\*Appointed November 30, 1932.



as her successor Miss Rose J. Covino, who for the past three years had been an assistant in the treasurer's office and had discharged some of the duties of the treasurer during Miss Leary's absence.

#### PATIENTS UNDER THE CARE OF THE TRUSTEES

The average daily number of patients in the hospital has been 2,054.70. In addition there were on the average 12.94 patients in private care and 196.57 on visit and escape. The number of admissions during the statistical year was 755.

#### COST OF MAINTENANCE

The amount allowed for maintenance this year by the General Court was \$765,650 in addition to \$35,241.26 brought forward from the preceding year. The average weekly cost per patient was \$6.9223.

#### ESTIMATES FOR MAINTENANCE

The following are the estimates of the amount needed for the ensuing year based on the established salary scales and the established per capita allowance for a population of 2,200.

Personal service . . . . .	\$495,646.90
Religious instruction . . . . .	2,080.00
Travel, transportation, etc. . . . .	7,615.50
Food . . . . .	142,197.00
Clothing and materials . . . . .	26,598.00
Heat, and other plant operations . . . . .	72,512.14
Medical and general care . . . . .	22,147.00
Furnishings and household supplies . . . . .	35,805.00
Farm . . . . .	5,188.65
Garage, stable and grounds . . . . .	2,975.11
Repairs, ordinary . . . . .	15,000.00
Repairs and renewals . . . . .	3,500.00
Total . . . . .	<hr/> \$831,265.30

#### NEW CONSTRUCTION

During the year the removal of a portion of the old administration building and its transformation into a residence for members of the staff was completed, and the construction of a greenhouse has been begun but is not yet finished. Appropriations for these purposes were made by the General Court in 1930. In 1931 appropriations were made for a reception building and for fencing the grounds of the hospital. A simple but adequate iron fence has been built on both sides of Morton Street, on Canterbury Street between Morton Street and the Superintendent's house, and on Austin Street, while a six-foot wire fence has been installed along the balance of Canterbury Street. This fence improves the appearance of the grounds and furnishes a considerable measure of protection against trespassers. The reception building is practically completed and can be opened for patients as soon as a sufficient allowance is made for the additional personal services which it requires. With this building, which is admirably adapted to its purposes, the hospital will be able to render a much needed service of the greatest value to the patients and the community. There were no appropriations for construction this year.

The Trustees have recommended to the Department of Mental Diseases the early consideration of the following additional facilities and accommodations, which are needed to complete the equipment of the institution. While it is not expected that in the present financial condition of the Commonwealth all these needs can be supplied in the near future, it is hoped that they may be included in any extended programme of improvements. The need of these items is explained in the Superintendent's report.

1. A building for 84 employees and the West Group medical office.
2. A building for 149 male employees.
3. The construction of certain needed roads.
4. A root cellar.
5. A laboratory and research building.

6. Three cottages for physicians.
7. A flat work ironer.
8. Additional fencing.

HENRY LEFAVOUR

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## SUPERINTENDENT'S REPORT

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1932, and the fiscal year ending November 30, 1932. Founded by the City of Boston in 1839, this marks the completion of its ninety-third year as a hospital for mental diseases, and the twenty-fourth year of its history as a State institution.

### MOVEMENT OF POPULATION

The census of the hospital on September 30, 1931, was as follows: in the wards, men, 895, women, 1,232, total, 2,127; at home on visit, men, 75, women, 91, total, 166; boarding out, men, none, women, 15; and out on escape, men, 3, women, none; making a total of 2,311, 973 men and 1,338 women, in the custody of the hospital.

A total of 755 persons were received during the year, including 382 men, and 373 women. This included the following: first admissions as insane<sup>1</sup>, men, 208, women, 225, total 433; readmissions as insane<sup>2</sup>, men, 33, women, 51, total, 84; first admissions, temporary care, men, 67, women, 39, total, 106; readmissions, temporary care, men, 15, women, 17, total, 32; and transferred from other institutions, men, 21, women, 20, total, 41. Three hundred and fifty-nine, including 195 men, and 164 women, were discharged during the year. Thirty-eight men and thirty-three women, a total of 71, were transferred to other institutions. One hundred and eighty-one men and one hundred and seventy-three women, a total of 354, died during the year.

The census on September 30, 1932, was as follows: in the wards, men, 844, women, 1,219, total, 2,063; at home on visit, men, 93, women, 112, total, 205; boarding out, men, none, women, 10; and out on escape, women, none, men, 4; making a total of 2,282, 941 men and 1,341 women, in the custody of the hospital.

The total number of cases treated during the year was 3,066, 1,355 men and 1,711 women.

The average daily number of patients for the statistical year was as follows: men, 937.76, women, 1,324.68, total, 2,262.44. The average daily number in the wards was: men, 848.76, women, 1,205.91, total, 2,054.67, or 90.82% of the whole number. The average daily number at home on visit was, men, 86.07, women, 104.96, total, 191.03, or 8.44 %. The average daily number boarding out was: men, none, women, 13.81, or .61%. The average daily number out on escape was: men, 2.93, women, none, total, 2.93, or .13%. The average daily number of committed cases was: men, 829.09, women, 1,197.91, total, 2,027.00, or 98.65% of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was: men, .008, women, .027, total, .035, or .0017%. The average daily number of cases under complaint or indictment was: men, 13.81, women, 2.06, total, 15.87, or .77%. The average daily number of temporary care cases, including the emergency cases and those under complaint or indictment, was: men, 19.67, women, 8.00, total, 27.67, or 1.35%. The average daily number of epileptics was: men, 16.45, women, 17.44, total, 33.89, or 1.65%. The average daily number of tuberculous patients was: men, 16.43, women, 40.90, total, 57.33, or 2.84 %. The average daily number of reimbursing cases was: men, 83.21, women, 152.25, total, 235.46, or 11.46%. The average daily number of cases supported by the State was: men, 765.55, women, 1,053.66, total, 1,819.21, or 88.54%. The average daily number of ex-service cases in the hospital was: men, 23.16, women, 2.00, total, 25.16, or 1.23%.

<sup>1</sup>Including 4 men and 3 women committed from temporary care admissions of the preceding year.

<sup>2</sup>Including 1 man and 1 woman committed from temporary care admissions of the preceding year.

The recovery rate, based on the number of all first admissions (560), was 14.64%; based on the total number cared for during the year (3,066), 2.67%; based on the average daily number in the wards (2,054.67), 3.99%; and based on the total number of admissions for the year (755), 10.86%.

The death rate, based on the total number cared for during the year, was 11.55%; and based on the average daily number in the wards, 10.72%. Inasmuch as over 35% of the population is of the infirm type, and about ten per cent bed cases, the death rate at this institution is unusually large compared with similar hospitals. There are committed to the Boston State Hospital many acutely ill, senile, and infirm cases from the city that cannot readily be transported to a greater distance. It is obvious, for the same reason, that too much significance should not be attached to the recovery rate. In this connection, attention should be called to the fact that the first admissions for this year represent an average age on admission of 53.88 years.

Of the first admissions as insane, 215, or 49.65%, were foreign born, and 331, or 76.44%, were of foreign parentage on one or both sides. Seventy-six, or 17.55%, were aliens. Citizenship was unascertained in 47, or 10.85%. Of the 5,016 consecutive first admissions for the twelve-year period ending September 30, 1932, 2,441, or 48.66%, were foreign born; 4,003, or 79.80%, were of foreign parentage on one or both sides; 910, or 18.14%, were aliens; and citizenship was unascertained in 519, or 10.35 per cent.

The average age on admission was 53.88 years; 187, or 43.19%, were sixty years of age or over, and 100, or 23.09%, were seventy years of age or over. For the twelve-year period ending September 30, 1932, the average age on admission was 52.39 years; 1,990, or 39.07%, were sixty years of age or over; and 1,084, or 21.61%, were seventy years of age or over.

The first admissions for the year, classified according to legal status, under the General Laws, were as follows:

	Males	Females	Totals
Committed cases (Sec. 51, Chap. 123) . . . . .	122	132	254
Committed cases (Sec. R. C. 77, Chap. 123) . . . . .	1	1	2
Cases committed from observation (Chap. 19, Acts of 1924) . . . . .	—	—	—
Voluntary admissions (Sec. 86, Chap. 123) . . . . .	—	—	—
Emergency commitments (Sec. 78, Chap. 123) . . . . .	—	1	1
Pending examination and hearing (Sec. 55, Chap. 123) . . . . .	—	—	—
Acquitted of murder by reason of insanity (Sec. 101, Chap. 123) . . . . .	—	—	—
Temporary care cases (Sec. 79, Chap. 123) . . . . .	75	83	158
Observation cases (Sec. 77, Chap. 123) . . . . .	10	8	18
<b>Total</b> . . . . .	<b>208</b>	<b>225</b>	<b>433</b>

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (Sec. 51, Chap. 123, General Laws), 58.66%; cases committed from observation (Sec. R. C. 77, Chap. 123, General Laws), .45%; emergency cases (Sec. 78, Chap. 123, General Laws), .23%; observation cases (Sec. 77, Chap. 123, General Laws), 4.16%; and temporary care cases (Sec. 79, Chap. 123, General Laws), 36.50%. For the twelve-year period ending September 30, 1932, the distribution of the 5,016 first admissions classified according to legal status was as follows: committed cases (Sec. 51, Chap. 123, General Laws), 3,490, or 69.58%; cases committed from observation (Sec. R. C. 77, Chap. 123, General Laws, and Chap. 19, Acts of 1924,) 5, or .10%; voluntary cases (Sec. 86, Chap. 123, General Laws), 3, or .06%; emergency cases (Sec. 78, Chap. 123, General Laws), 54, or 1.08%; observation cases (Sec. 77, Chap. 123, General Laws), 239, or 4.76%; temporary care cases (Sec. 79, Chap. 123, General Laws), 1,203, or 23.98%; and one case pending examination and hearing (Sec. 55, Chap. 123, General Laws), and one case acquitted of murder by reason of insanity (Sec. 101, Chap. 123, General Laws). The cases held under complaint or indictment (Sec. 100, Chap. 123, General Laws), constitute,

.38%, but this is misleading inasmuch as these cases are included only for the first three years of the above period, being counted as temporary care cases since that time. There was also included above one Boston Police case (Chap. 307, Acts of 1910). No voluntary cases have been admitted since 1921.

Of the 433 first admissions for the year, the cause was unascertained or no cause given in 99, or 22.86%. In the 334 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 33, or 9.88%; arteriosclerosis, 147, or 44.01%; syphilis, 24, or 7.19%; alcoholism, 33, or 9.88%; involutional changes, 16, or 4.80%; and traumatism, 3, or .89%. There was a family history of mental diseases in 72, or 16.63%, mental defects in 16, or 3.70%, and nervous diseases in 15, or 3.46%, of the first admissions. Of the 5,016 first admissions to the hospital during the twelve-year period ending September 30, 1932, the cause was unascertained or no cause given in 1,415, or 28.21%, of the cases. In the 3,601 cases where a definite cause was assigned, the etiological factors are classified as follows: senility, 635, or 19.02%; arteriosclerosis, 1,018, or 28.27%; syphilis, 409, or 11.36%; alcoholism, 401, or 11.14%; involutional changes, 221, or 6.14%; and traumatism, 53, or 1.47%. There was a family history of mental diseases in 828, or 16.51%; mental defects in 92, or 1.83%; and nervous diseases in 194, or 3.86%, of the first admissions during this period.

The forms of mental disease shown by the 433 first admissions for the year, briefly summarized, were as follows: senile psychoses, 32, or 7.39%; psychoses with cerebral arteriosclerosis, 148, or 34.18%; general paralysis, 22, or 5.08%; psychoses with other brain or nervous diseases, 12, or 2.77%; alcoholic psychoses, 29, or 6.70%; psychoses due to drugs or other exogenous toxins, 5, or 1.15%; psychoses with other somatic diseases, 8, or 1.85%; manic-depressive psychoses, 98, or 22.63%; involution melancholia, 3, or .70%; dementia praecox, 10, or 2.31%; paranoia and paranoid conditions, 23, or 5.31%; epileptic psychoses, 4, or .92%; psychoses with mental deficiency, 11, or 2.54%; and all other psychoses 1% or less. Ten, or 2.31%, were without psychosis. The psychoses of all first admissions are shown in Table 6, on page 29. The forms of mental disease shown by the 5,016 first admissions for the twelve-year period ending September 30, 1932, are summarized as follows: traumatic psychoses, 26, or .52%; senile psychoses, 709, or 14.13%; psychoses with cerebral arteriosclerosis, 1,164, or 23.22%; general paralysis, 380, or 7.57%; psychoses with cerebral syphilis, 25, or .50%; psychoses with Huntington's chorea, 5, or .10%; psychoses with brain tumor, 12, or .24%; psychoses with other brain or nervous diseases, 89, or 1.77%; alcoholic psychoses, 328, or 6.54%; psychoses due to drugs and other exogenous toxins, 24, or .48%; psychoses with pellagra, 3, or .06%; psychoses with other somatic diseases, 147, or 2.93%; manic-depressive psychoses, 758, or 15.11%; involution melancholia, 105, or 2.09%; dementia praecox, 471, or 9.40%; paranoia and paranoid conditions, 300, or 5.98%; epileptic psychoses, 44, or .87%; psychoneuroses and neuroses, 36, or .72%; psychoses with psychopathic personality, 33, or .66%; psychoses with mental deficiency, 136, or 2.87%; and undiagnosed psychoses, 164, or 3.27%. Forty-nine, or .97%, were without psychosis. Attention should again be called to the fact that the psychoses represented by our first admissions are not consistent with the admission rate shown by other hospitals. This is due to the fact that the acutely ill, the senile, and the infirm cases from the City of Boston cannot be removed to distant institutions, and for that reason are brought here. It does not mean, of course, that the admission rates for manic-depressive insanity and for dementia praecox are lower in Boston. As a matter of fact, if the senile and arteriosclerotic cases are disregarded, it will be readily apparent that this is not the case.

The forms of mental disease shown by the readmissions for the year, briefly summarized, were as follows: senile psychoses, 3, or 3.57%; psychoses with cerebral arteriosclerosis, 7, or 8.33%; general paralysis, 1, or 1.19%; psychosis with cerebral syphilis, 1, or 1.19%; psychosis with other brain or nervous diseases, 1, or 1.19%; alcoholic psychoses, 4, or 4.76%; psychosis due to drugs and other exogenous toxins, 1, or 1.19%; manic-depressive psychoses, 46, or 54.76%; dementia praecox, 8, or 9.52%; paranoia and paranoid conditions, 4, or 4.76%; and psychoses with mental deficiency, 8, or 9.52%.

Of the 84 readmissions, 39, or 46.43%; were committed under the provisions of section 51, chapter 123, of the General Laws; 40, or 47.62%, were temporary care cases (section 79, chapter 123, General Laws); and 5, or 5.95 %, were observation cases (section 77, chapter 123, General Laws). No emergency cases (section 78, chapter 123, General Laws), no voluntary cases (section 86, chapter 123), and no cases pending examination and hearing (section 55, chapter 123) were included in the readmissions for the year.

The total number of insane cases discharged during the year was 177. Of this number, 67, or 37.85%, were discharged as recovered; 81, or 45.77%, as improved; 22, or 12.43%, as unimproved; and 7, or 3.95%, as without psychosis. Of the 67 recovered cases, 1, or 1.49%, was a case of senile psychosis; 4, or 5.97%, were cases of psychosis with cerebral arteriosclerosis; 2, or 2.98%, alcoholic psychosis; 3, or 4.49%, psychosis due to drugs and other exogenous toxins; 1, or 1.49%, psychosis with pellagra; 2, or 2.98%, psychosis with other somatic disease; 48, or 71.64%, manic-depressive psychosis; 2, or 2.98%, psychoneurosis or neurosis; 1, or 1.49%, psychosis with psychopathic personality; and 3, or 4.49%, psychosis with mental deficiency. Of the 81 cases discharged as improved, 2, or 2.47%, were cases of senile psychosis; 10, or 12.35%, psychosis with cerebral arteriosclerosis; 3, or 3.71%, general paralysis; 2, or 2.47%, psychosis with other brain or nervous disease; 4, or 4.94%, alcoholic psychosis; 2, or 2.47%, psychosis with other somatic disease; 33, or 40.74%, manic-depressive psychosis; 2, or 2.47 %, involution melancholia; 5, or 6.17%, dementia praecox; 7, or 8.64%, paranoia and paranoid condition; 1, or 1.23%, epileptic psychosis; 1 or 1.23%, psychoneurosis or neurosis; 4, or 4.94%, psychosis with psychopathic personality; 4, or 4.94%, psychosis with mental deficiency; and 1, or 1.23%, undiagnosed psychosis. Of the 22 cases discharged as unimproved, 3, or 13.63%, were cases of senile psychosis; 7, or 31.81%, psychosis with cerebral arteriosclerosis; 1, or 4.55%, general paralysis; 1, or 4.55%, psychosis with other brain or nervous disease; 1, or 4.55%, alcoholic psychosis; 2, or 9.09%, manic-depressive psychosis; 3, or 13.63%, dementia praecox; 2, or 9.09%, paranoia or paranoid condition; 1, or 4.55%, psychosis with mental deficiency; and 1, or 4.55%, undiagnosed psychosis.

The following is a study of the entire hospital residence (including other institutions for mental diseases) of the cases discharged during the year; 5, or 2.83%, were discharged after a residence of less than one month; 17, or 9.60%, after a residence of from one to six months; 4, or 2.26%, from six months to one year; 79, or 44.63%, from one to two years; 32, or 18.08%, two to three years; 11, or 6.22%, three to four years; 5, or 2.83%, four to five years; 15, or 8.47%, five to ten years; and 9, or 5.08%, ten years or over. The average duration of hospital residence was two years, ten months and six days.

Of the 334 deaths occurring during the year, 230, or 68.86%, represented cases dying at the age of sixty or over. In 148, or 44.31%, death occurred at the age of seventy or over. Of the 3,239 deaths occurring at the hospital during the twelve-year period ending September 30, 1932, 2,214, or 68.35%, were cases dying at the age of sixty or over; and in 1,234, or 38.09%, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: endocarditis and myocarditis, 118, or 35.33 %; bronchopneumonia, 70, or 20.96%; general paralysis of the insane, 23, or 6.88%; tuberculosis of the lungs, 28, or 8.38%; arteriosclerosis, 14, or 4.19%; cancer, 18, or 5.38%; nephritis, 9, or 2.69%; lobar pneumonia, 10, or 3.00%; and cerebral hemorrhage, 9, or 2.69 per cent.

The psychoses represented by deaths occurring in the hospital during the year were as follows: senile psychoses, 44, or 13.17%; psychoses with cerebral arteriosclerosis, 141, or 42.22%; general paralysis, 28, or 8.38%; psychoses with other brain or nervous diseases, 10, or 3.00%; alcoholic psychoses, 17, or 5.09%; manic-depressive psychoses, 28, or 8.38%; involution melancholia, 5, or 1.49%; dementia praecox, 25, or 7.48%; paranoia and paranoid conditions, 12, or 3.59%; epileptic psychoses, 5, or 1.49%; psychoses with mental deficiency, 9, or 2.70%; and each of the following less than one per cent: traumatic psychosis, psychosis with brain tumor, psychosis due to drugs and other exogenous toxins, psychosis with other somatic disease, psychoneurosis or neurosis, and undiagnosed psychosis. Of

the 44 cases of senile psychosis dying in the hospital during the year, 9, or 20.46%, were due to bronchopneumonia, and 17, or 38.64%, to endocarditis and myocarditis. Of the 141 cases of psychosis with cerebral arteriosclerosis, death was due in 64, or 45.40%, to endocarditis and myocarditis, in 44, or 31.20%, to bronchopneumonia, and in 7, or 5.00%, death was attributed directly to arteriosclerosis. Of the 28 cases of general paralysis, death is reported as due to general paralysis of the insane in 23, although bronchopneumonia occurred in 9, or 32.14%. Of the 25 cases of dementia praecox, death was due to bronchopneumonia in 3, or 12%, to lobar pneumonia in 6, or 24%, to cancer in 2, or 8%, to endocarditis and myocarditis in 5, or 20%, and to tuberculosis of the lungs in 8, or 32%.

Of the 334 patients dying in the hospital during the year, the total duration of hospital residence was as follows: less than one year, 163 or 48.80%; one to three years, 45, or 13.47%; three to five years, 32, or 9.58%; five to seven years, 26, or 7.78%; seven to nine years, 13, or 3.90%; nine to eleven years, 11, or 3.29%; eleven to fifteen years, 13, or 3.90%; fifteen to twenty years, 14, or 4.19%; and twenty years and over, 17, or 5.09%. The psychoses showing the longest hospital residence were as follows: psychosis with other brain or nervous disease, one over 25 years; alcoholic psychosis, five from 15 to 20 years, one over 20 and one over 26 years; manic-depressive psychosis, two over 18 years; involution melancholia, one over 19 years; dementia praecox, four from 15 to 20 years, one over 20, one over 22, one over 24, one over 27, and one over 30 years; paranoia and paranoid condition, one over 17, one over 20, and one over 27 years; epileptic psychosis, one over 17 years; and psychosis with mental deficiency, one over 17 years, one over 20, and one over 24 years. The following shows the duration of hospital residence of all cases dying in the hospital during the twelve-year period ending September 30, 1932: less than one year, 1,634, or 50.45 per cent; one to three years, 646, or 19.95 per cent; three to five years, 280, or 8.65 per cent; five to seven years, 180, or 5.55 per cent; seven to nine years, 112, or 3.46 per cent; nine to eleven years, 71, or 2.19 per cent; eleven to fifteen years, 139, or 4.29 per cent; fifteen to twenty years, 79, or 2.44 per cent; and twenty years and over, 96, or 2.96 per cent. In this total of 3,239 deaths, the duration of hospital residence was unascertained in 2, or .06 per cent.

In the two preceding annual reports, results have been published of a study of the hospital residence of all consecutive admissions to this hospital for a period of ten years beginning October 1, 1920, — a total of 6,368 cases. These same cases have been studied again this year, at the expiration of two years after the last admission. From the total admissions there have been excluded all of that number who have died or been transferred previous to October 1, 1932, leaving a total of 3,640 cases. No consideration has been given to the deaths or transfers because such cases represent an uncompleted hospital residence, and it is impossible to determine what their hospital residence would have been had it not been terminated by death or transfer.

This study shows that 7.03 per cent were discharged after a residence in the hospital of seven days or less; 19.83 per cent, after thirty days or less; 45.06 per cent, after six months or less; and 56.76 per cent, after one year or less. It is interesting to note that of the above 3,640 consecutive admissions 15.41 per cent remained in the hospital after a residence of five years or more, and 3.93 per cent, after a residence of more than ten years.

An analysis of 4,288 consecutive admissions to this hospital for the twelve-year period beginning October 1, 1920, and ending September 30, 1932, excluding deaths, transfers, and cases discharged as without psychosis, shows a recovery rate of 17.05 per cent.

The following general information relating to the ward service should be of interest:

	<i>Males</i>	<i>Females</i>	<i>Totals</i>	<i>Percentage</i>
Average daily population . . . . .	848.76	1,205.91	2,054.67	100.00
In bed . . . . .	75.64	148.87	224.51	10.92
Congregate dining room . . . . .	714.37	675.31	1,389.68	67.63
Eating in wards . . . . .	134.39	530.60	664.99	32.37
Fed by nurses . . . . .	14.14	91.11	105.25	5.12

Idle . . . . .	329.82	627.50	957.32	46.59
Employed . . . . .	518.94	578.41	1,097.35	53.41
Parole of grounds . . . . .	107.66	11.61	119.27	5.80
Out for exercise . . . . .	768.35	778.56	1,546.91	75.28
Noisy . . . . .	53.57	237.98	291.55	14.19
Violent . . . . .	.18	51.98	52.16	2.54
Destructive . . . . .	19.15	170.11	189.26	9.21
Soiled or wet . . . . .	102.16	200.79	302.95	14.74
Taking medicine . . . . .	42.71	39.14	81.85	3.98
Epileptic . . . . .	16.45	17.44	33.89	1.65
Tuberculous . . . . .	16.43	40.90	57.33	2.79
Infirm . . . . .	339.30	408.24	747.54	36.38
Restraint . . . . .	3.25	13.85	17.10	.86
Seclusion . . . . .	6.12	18.07	24.19	1.17

The percentages given above represent the average daily number for the entire year, that is: the average daily number of patients in bed was 224.51, or 10.92 per cent of the average daily number of patients in the wards of the hospital for the year, and the average daily number out for exercise was 1,546.91, or 75.28 per cent of the same average daily population. The proximity of the institution to the City of Boston is responsible to a great extent for the large proportion of our patients who belong to the infirm class — 36% this year of the total average daily number cared for. Taking into consideration the percentage of infirm, including the bed patients, it will be noted that a large proportion of our patients go out for exercise, and a considerable number are employed in useful occupations. The average daily number of noisy patients and the average daily number of violent patients are lower than is generally supposed.

#### GENERAL HEALTH OF THE HOSPITAL

The general health of the patients and employees was unusually good throughout the year, with the exception of a small epidemic of gripe which occurred during the late winter and early spring. This was fairly typical and of moderate severity. There were 94 cases in all, and one death, from lobar pneumonia, which could be attributed directly to gripe.

Three cases of scarlet fever occurred, one patient in the East Group and two attendant nurses in the West Group. There was no apparent connection between these cases, there being a lapse of three months between the first two, and a lapse of nearly two months between the second and third. The recoveries were all uneventful. It seems quite probable that the contagion in each case was from some outside source.

Two patients suffering from pellagra were admitted from general hospitals during the year. The first, who was in an emaciated, weakened condition upon admission, died three days later. The other patient remained in the hospital for nine days, when he was committed to another State hospital.

One case of mumps developed in an attendant nurse at the West Group. He was sent to the South Department of the Boston City Hospital for treatment.

On March 10, 1932, Frances Aldrich, an attendant nurse at the West Group, died at the Boston City Hospital from a lung abscess. Two days previously, she was taken seriously ill while on duty. Her condition was such that it was deemed advisable to remove her to the City Hospital. An autopsy showed the presence of a large abscess in the left lower lobe of the right lung. It was subsequently learned that two weeks before being taken sick she had had a tooth extracted, under a general anesthetic, by a dentist in a suburb of Boston. The medical examiner felt that the abscess was produced by the inhalation of blood and mucus at that time.

Accidental falls among the aged and infirm patients produced the usual number of fractures, all of which were reported to the Department of Mental Diseases and to the Board of Trustees.

Minor accidents occurring among the employees were all reported in the usual manner to the Department of Industrial Accidents.

Eight hundred and eighty-five Wassermann examinations were made for us by the State Department of Public Health — 796 blood serum and 89 cerebrospinal

fluid. There have been 422 treatments for neurosyphilis throughout the year, to 36 different patients, making an average number of 11.72 treatments per patient. A full account of this work is given on another page.

#### EMPLOYEES

On September 30, 1931, there were 444 persons employed in the hospital. During the year, 172 were appointed, 142 resigned, and 22 were discharged. Six hundred and sixteen persons occupied 477.5 positions — a rotation of 1.29. The average daily number of employees during the year was 454.74, with 4.76 per cent of vacancies. The average daily number in the ward service was 245.33, with 7.60 per cent of vacancies. The ratio of ward employees to patients was one to 8.37, and of all employees, one to 4.51. The rate of rotation was lower than for several years, the personnel being more stable. There was a continued increase in the number of applicants with higher educational qualifications. The total number of visitors to patients during the year was about 70,000, the maximum number on one day being 1,045. It is obvious that these visitors require considerable attention from the nurses and attendants.

#### MEDICAL SERVICE

The medical staff remained unchanged throughout the year, with one exception. Dr. Joseph Hahn, who was appointed assistant physician on June 15, 1931, resigned June 30, 1932, and was succeeded on July 1st by Dr. Luther F. Grant. Dr. Grant was born in Liberty, N. Y., obtained his preliminary education at Temple University in Philadelphia and at Boston University, receiving his medical degree, cum laude, from Boston University School of Medicine in 1931. He served for one year as junior interne and one year as senior interne at the Massachusetts Memorial Hospitals.

There has been no change in the list of consultants. Dr Irving J. Walker, Dr. Charles C. Lund, and Dr. Grace E. Rochford have visited the hospital frequently, and performed the necessary major operations. Frequent calls have been made upon Dr. William E. Preble and Dr. Albert Evans, internists, during the year, and several patients have been seen by Dr. Abraham Myerson, consulting neurologist. Whenever there has been any question of the occurrence of communicable disease, Dr. Edwin H. Place, epidemiologist, has been called in consultation. Five hundred and forty-four patients were examined and treated in the eye clinic, which has been in charge of Dr. Paul A. Chandler, and Dr. Donald H. Macdonald has examined and treated 547 patients in the ear, nose, and throat clinic during the year.

Six clinics in psychiatry were given to the third year students of Tufts College Medical School by Dr. Roy D. Halloran, Assistant to the Commissioner of the Department of Mental Diseases, and by Dr. Herbert E. Herrin and Dr. Gerald F. Houser, instructors in psychiatry at the Tufts College Medical School. Two fourth year students of that school each month of the school year were in residence at the hospital and received instruction in psychiatry. Beginning in the middle of September, two fourth year students of Boston University School of Medicine were added to this group. Other clinics in psychiatry were given as follows: by Drs. Herrin and Houser, three to the third year students of the Boston University School of Medicine; by Dr. Herrin, one to the fourth year students of Middlesex College of Medicine and Surgery; and by various members of the medical staff, to the nurses from the training schools of Cambridge Hospital (three), Massachusetts Memorial Hospitals (one), and Beth Israel Hospital (one).

As in the preceding year, a group of four physicians under the auspices of the Rockefeller Foundation were given instruction consisting of information relating to different forms of commitment, some facts pertaining to the keeping of records, hospital administration, and various methods of treatment.

The usual staff meetings have been held during the year, alternating between the East Group and the West Group, with one meeting each month at the pathological laboratory. At these meetings an effort is made to present all new admissions, as well as cases about to leave the hospital on visit or to be discharged.

The venereal clinic during the year was conducted by Dr. Gerald F. Houser, with the assistance of Dr. Frederick LeDrew and Dr. Luther F. Grant. Student internes were all given an opportunity to participate in the work and were instructed



in the various phases of syphilotherapy. This clinic has had some success in the use of tryparsamide in central nervous system syphilis, and it was used almost exclusively in these cases again this year. Three hundred and fifteen intravenous injections were given to twenty-eight patients, and of these ten showed distinct improvement, eleven grew definitely worse, and seven remained unchanged in a fairly well-preserved state. Treatment with sulpharsphenamine was started in one case of general paralysis, but discontinued after one injection, due to the poor physical condition of the patient. Eighty-nine intravenous injections of sulpharsphenamine were given to eight patients, seven of whom were suffering from vascular syphilis in which the disease was not related to the mental symptoms shown. Two of the latter group showed serological improvement, while the remainder were unchanged in this respect. One of these cases showed evidence of syphilitic aortitis and another had a gummatous growth, but there was no clinical evidence of syphilis in the remaining five. One patient could not tolerate sulpharsphenamine and, because of gastric symptoms, thio-bismol was substituted. He was given eighteen intramuscular injections and showed considerable improvement.

#### RESEARCH DEPARTMENT

The work of the research laboratory under the direction of the Department of Mental Diseases has been continued throughout the year under the supervision of Dr. Abraham Myerson. Dr. Roy D. Halloran, of the Department of Mental Diseases, Dr. William Dameshek, and Dr. Julius Loman have been associated with him, as in the past few years. The biochemical and general technical work was done by Miss Caroline Stephenson and Mr. David Goldman, assisted from May 1st to September 1st by Miss Leah Domas.

During the past year, the work of the laboratory has been carried on steadily and continuously in the following three fields of research: (1) the study of the brain activity under drugs, (2) experiments designed to investigate the actual pressure changes which take place within the cranial cavity in change of position of the head and under various conditions, and (3) research on the secondary anemias and primary anemias of the hospital. In the first study, experiments have been carried on in the use of insulin and its effects, which will be published shortly. The most important results have been to show that when insulin is given, the sugar use of the brain is cut down. The oxygen use diminishes and the intracranial pressure rapidly rises. Some experiments have been carried on under the administration of anesthesia. These have shown that brain activity, so far as ordinary tests are concerned, is chemically not greatly disturbed, despite the fact that the individual becomes unconscious; nor does the spinal fluid pressure or the intracranial pressure change greatly. The principal change which takes place is a fall in general arterial pressure. It is apparent that some unknown biochemical is operating in this form of anesthesia. Some experiments on cholesterol content are also being carried on, but no definite statements regarding them can be made at this time. In the second study (work on actual pressure changes within the cranial cavity), an instrument has been devised by which what is called "negative" pressure may be measured. It is possible to state at this time that (1) there is constantly within the skull 760 mm. of mercury pressure, which may be called the basic or atmospheric pressure, and (2) what we ordinarily call "intracranial pressure" is merely pressure above this high level, and therefore the range of pressure within the brain, as within the body, is a narrow one. Increased intracranial pressure is a relative term, of clinical importance, it is true, but usually misleading in what it seems to connote. In the study of anemias, it has been found that apparently secondary anemia is quite common and that primary anemia, while not so common, exists in every State hospital and requires treatment. We believe that hospital diets, on the whole, do not contain enough fats.

Papers were read by Dr. Myerson during the past year as follows: "Intracranial Pressure", before the Wachusett Medical Society, Holden, Mass.; "Studies of Jugular, Spinal Fluid and Blood Pressures in Humans", before the Boston City Hospital staff; "Effects of Drugs on Intracranial Pressure in the Human Being", before the Boston Society of Psychiatry and Neurology; "Biochemistry of the Brain", before the American Association for the Advancement of Sciences, at New

Orleans, La.; and "Some Biochemical and Pressure Activities of the Brain", before the Boston Society of Biologists. The following papers were published during the year:

"Internal Jugular Venous Pressure in Man: Its Relationship to Cerebrospinal Fluid and Carotid Arterial Pressures", by A. Myerson, M.D., and J. Loman, M.D. Archives of Neurology and Psychiatry, April, 1932, Vol. 27, pp. 836-846.

"The Action of Certain Drugs on the Cerebrospinal Fluid and on the Internal Jugular Venous and Systemic Arterial Pressures of Man", by A. Myerson, M.D., and J. Loman, M.D. Archives of Neurology and Psychiatry, May, 1932, Vol. 27, pp. 1226-1244.

"Direct Arterial Blood Pressure Readings in Man", by W. Dameshek, M.D., and J. Loman, M.D. American Journal of Physiology, June, 1932, Vol. 101, p. 140.

A paper on "The Mechanism of the Central Nervous System Manifestations of Insulin in Hypoglycemia", by A. Myerson, M.D., and W. Dameshek, M.D., with the technical assistance of Caroline Stephenson, A.B., is now ready for publication and will appear shortly in the American Journal of Physiology.

#### SOCIAL SERVICE DEPARTMENT

The work of the department has been carried on during the past year under the supervision of Miss Florence E. Armstrong, head social worker. There have been under her direction four paid workers, one with the rating of psychiatric social worker, and three rating as assistant social workers. One of the last was appointed to fill a newly created position in which there was a vacancy at the time of the 1931 report. The new appointee is a graduate of the University of New Hampshire, and was trained at the Medfield State Hospital in the State Hospital Training Course. There have been no resignations during the past year. Two students registered under the State Hospital Training Course at this hospital last year went out in June, 1932, having completed their nine months' training period. One has returned to the Simmons School of Social Work to complete the requirements for her Master's degree. During the same student year, three candidates for the Master's degree were placed with us by the Simmons School of Social Work for supervision in their field work. Throughout the winter of 1931-32 we had the benefit of some very creditable work performed by two volunteers. In September, 1932, three students were assigned to this institution for the State Hospital Training Course, and are now resident here. One attended Simmons College for two years, one is a graduate of the University of Maine, and one is a graduate of Brown University. Two students have been assigned from the Simmons School of Social Work for their field work training, in anticipation of their degree of Bachelor of Science.

During the past year the department has recorded the following work: 240 medical-social histories completed, 99 social investigations made of cases regularly committed to the hospital under Section 51 of Chapter 123 of the General Laws; 80, of cases admitted under Section 77 Observation; 17, of cases under Section 100; 68, new cases for supervision; and 142, cases under School Clinic. Numerous home investigations have been made in relation to patients to be dismissed on trial visit, and there have been many cases for locating relatives to assume burial responsibility.

There have been no noteworthy changes in the work of the department. Since a staff of five social workers must meet the urgent needs of a hospital population of over 2,100, it is obvious that we must concentrate upon efficiency in our routine and upon quality of performance in selected cases for social treatment. We may still hope that we shall have a staff large enough to locate in both the East and the West Groups, so that the scattered population of this hospital may be served without the exclusion of any patient. At the present time, our work divides itself roughly into two parts, — first, the task of gathering material to contribute to the physicians' findings for psychiatric diagnoses, and second, carefully planned supervision of such patients on trial visit as may benefit by our services. In both instances this involves careful judgment in selecting cases. Under ideal conditions, the department would investigate the case of every patient coming into the hospital, and would supervise without exception every patient re-entering the community.

Much of the head social worker's time is devoted to training students in order that they may not only learn and put into practice sound principles of psychiatric social work for their own development as students, but also that their efforts may be of some benefit to the hospital and their production in line with the standards required of the regular staff of the department. Thus, every worker and every student is brought to feel her double responsibility of contributing to the work of the hospital in practical fashion and of performing her professional duties in the community. There is a vast field for educational work with the public that falls to the lot of the mental hospital worker, inasmuch as her community interviews include contacts with physicians who possess scarcely any discernable knowledge of psychiatry, school teachers and principals, clergymen, lawyers, and employees of every type and class, many of whom still think of the State hospitals as little different from mediaeval institutions. It is not difficult to comprehend the opportunity and the responsibility of the conscientious social worker.

The following table shows the movement of patients under supervision and the social service work done during the year:

	Males	Females	Totals
In family care September 30, 1931 . . . . .	—	15	15
On visit September 30, 1931 . . . . .	75	91	166
On escape September 30, 1931 . . . . .	3	—	3
On visit from family care September 30, 1931 . . . . .	—	—	—
Dismissed to family care during the year . . . . .	—	4	4
Went out on visit during the year . . . . .	715	260	975
Escaped during the year . . . . .	16	—	16
Admitted from family care during the year . . . . .	—	8	8
Admitted from visit during the year . . . . .	628	161	789
Admitted from escape during the year . . . . .	12	—	12
Admitted from visit and discharged . . . . .	69	78	147
Admitted from escape and discharged . . . . .	3	—	3
Admitted from family care and discharged . . . . .	—	1	1
In family care September 30, 1932 . . . . .	—	10	10
On visit September 30, 1932 . . . . .	93	112	205
On escape September 30, 1932 . . . . .	4	—	4
On visit from Family Care September 30, 1932 . . . . .	—	—	—
Total number of cases considered . . . . .			807
New cases . . . . .			603
Renewed cases within the year . . . . .			72
Renewed cases from previous year . . . . .			75
Cases continued from previous year . . . . .			57
Cases closed during the year . . . . .			745
Cases continued to following year . . . . .			62

#### PATHOLOGICAL LABORATORY

The work of the pathological laboratory has continued during the year under the direction of Dr. Naomi Raskin, with the assistance of one laboratory technician. Since June there has also been one volunteer worker in this department. The following is a summary of the routine work of the pathological laboratory for the year: autopsies, 186; bacterial cultures, 7; bacterial slide examinations, 163; blood examinations—red counts 85, white counts 97, differential counts 91, hemoglobin estimations 86, coagulation time 2, reticulocyte count 1, bromine in blood 1, blood sugar 5; gastric contents, 10; pleuritic fluid, 4; spinal fluid examinations, 93; sputum examinations, 28; stool examinations, 14; tissue sections—paraffin 1,839, celloidin 159, frozen 101, surgical specimens 5; and urinalyses, 1,102.

The number of deaths during the year was 354, 186 of which came to autopsy, making the autopsy percentage 52.54 for the year.

The psychoses represented in cases coming to autopsy were as follows: traumatic psychoses, 2; senile psychoses, 22; psychoses with cerebral arteriosclerosis, 75; general paralysis, 24; psychoses with brain tumor, 2; psychoses with other brain or nervous diseases, 10; alcoholic psychoses, 11; psychoses with other somatic disease, 2; manic-depressive psychoses, 15; involution melancholia, 4; dementia praecox, 5; paranoia and paranoid condition, 3; epileptic psychoses, 3; psychoses with mental deficiency, 7, and undiagnosed psychosis, 1.

The following were the causes of death: bronchopneumonia and general arteriosclerosis, 29; chronic myocarditis and general arteriosclerosis, 28; bronchopneumonia, 29; chronic myocarditis and bronchopneumonia, 6; general paralysis of the insane, 4; chronic myocarditis, general arteriosclerosis, and bronchopneumonia, 4; bronchopneumonia and general paralysis, 4; general arteriosclerosis, 4; chronic myocarditis, 5; pulmonary tuberculosis, 3; chronic myocarditis and chronic nephritis, 3; coronary thrombosis and general arteriosclerosis, 3; general paralysis and chronic myocarditis, 2; lobar pneumonia, 2; general paralysis and syphilitic aortitis, 2; lobar pneumonia and chronic myocarditis, 1; taboparesis, 1; bronchopneumonia, chronic endocarditis, and chronic myocarditis, 1; abscess of lung followed by bronchopneumonia and chronic myocarditis, 1; general arteriosclerosis, pulmonary tuberculosis, and pyelonephritis, 1; lobar pneumonia, chronic myocarditis, and general peritonitis, 1; general arteriosclerosis and chronic adhesive pericarditis, 1; brain tumor following otitis media, chronic nephritis, and chronic myocarditis, 1; carcinoma of prostate, abscess of both kidneys, and cerebral arteriosclerosis, 1; chronic endocarditis and chronic adhesive pericarditis, 1; arteriosclerosis, alcoholic psychosis, and fractured femur, 1; general carcinomatosis and general arteriosclerosis, 1; lung abscess and general paralysis, 1; carcinoma of sigmoid, and chronic myocarditis, 1; cerebral hemorrhage, chronic endocarditis, chronic myocarditis, and chronic adhesive pericarditis, 1; bronchopneumonia, general arteriosclerosis, chronic nephritis, and ischiorectal abscess, 1; generalized tuberculosis, 1; general arteriosclerosis, chronic myocarditis, and acute bronchitis, 1; bronchopneumonia and pyelonephritis, 1; bronchopneumonia and cancer of pancreas, 1; bronchopneumonia and diabetes mellitus, 1; carcinoma of prostate, hydronephrosis, and chronic myocarditis, 1; acute appendicitis, and general peritonitis, 1; cirrhosis of liver and chronic myocarditis, 1; chronic myocarditis and cancer of pylorus, 1; general arteriosclerosis and cardiorenal disease, 1; bronchopneumonia, general arteriosclerosis, and chronic nephritis, 1; bronchopneumonia, general arteriosclerosis, chronic myocarditis, and chronic endocarditis, 1; bronchopneumonia and paralysis agitans, 1; general arteriosclerosis, edema of lungs, and coronary sclerosis, 1; cerebral embolism and chronic endocarditis, 1; cerebral hemorrhage, chronic myocarditis, and general paralysis, 1; internal hydrocephalus, epilepsy, and bronchopneumonia, 1; chronic endocarditis and general arteriosclerosis, 1; chronic atrophic arthritis and chronic myocarditis, 1; general paralysis and pulmonary abscess, 1; carcinoma of tongue and bronchopneumonia, 1; abscess of liver, general peritonitis, and septic peritonitis, 1; general arteriosclerosis, chronic myocarditis, and empyema, left chest, 1; bronchopneumonia, chronic myocarditis, and septic phlebitis, 1; general arteriosclerosis, chronic myocarditis, and septicemia from decubitus, 1; chronic myocarditis and acute hemorrhagic colitis, 1; subdural hemorrhage and chronic myocarditis, 1; bronchopneumonia, chronic endocarditis, and general arteriosclerosis, 1; general arteriosclerosis and coronary sclerosis, 1; general arteriosclerosis, chronic myocarditis, and chronic nephritis, 1; coronary thrombosis, and ulcerative cystitis, 1; mitral stenosis, regurgitation, and chronic myocarditis, 1; bronchopneumonia and chronic endocarditis, 1; general arteriosclerosis, coronary sclerosis, and pulmonary tuberculosis, 1; bronchopneumonia and syringomyelia, 1; chronic obliterative pericarditis, general paralysis, acute parenchymatous nephritis, 1; acute purulent bronchitis and chronic parenchymatous nephritis, 1; chronic endocarditis and chronic internal hydrocephalus, 1; chronic endocarditis, 1; general arteriosclerosis and aortic stenosis, 1; brain tumor, 1; general paralysis, chronic myocarditis, and chronic endocarditis, 1; cerebral hemorrhage, acute endocarditis, and pyelonephritis, 1; chronic pyelonephritis and abscesses of kidneys, 1; cerebral hemorrhage, bronchopneumonia, and acute cholecystitis, 1; brain tumor and transverse myelitis, 1; multiple sclerosis and bronchopneumonia, 1; cerebral embolism, chronic endocarditis, and general arteriosclerosis, 1; duodenal perforated ulcer, 1; general arteriosclerosis and acute cholecystitis, 1; chronic myocarditis and pleurisy with effusion, 1; chronic myocarditis and lobar pneumonia with empyema, 1; chronic myocarditis, general arteriosclerosis, and cerebral hemorrhage, 1; general paralysis, of the insane, general arteriosclerosis, and bronchopneumonia, 1; chronic endocarditis and chronic pericarditis, 1; cirrhosis of liver and general arteriosclerosis, 1;

strangulated inguinal hernia, right, and intestinal obstruction, 1; chronic myocarditis and chronic cholecystitis, 1; cancer of stomach, 1; carcinoma of face, 1; cirrhosis of liver, and lobar pneumonia, 1; aortic insufficiency, bronchopneumonia, and general arteriosclerosis, 1.

#### DENTISTRY

The dental work of the hospital has been carried on throughout the year by Dr. George S. Rileigh, the resident dentist, with the aid of one dental assistant. Each new patient admitted to the hospital is thoroughly examined within a few days after arrival, and a complete record is made of his condition. Diseased and inflamed conditions of the gums, old roots, carious teeth, faulty-fitting plates and bridgework, and teeth to be extracted are indicated on dental charts. Ether and nitrous oxide as general anesthetics have been employed in a great number of cases where a local anesthetic has been contraindicated. In the surgical extraction of teeth, the use of gauze drains, curetting of diseased tooth sockets, and suturing have constituted the regular procedure. It is the object of the dental department to restore the mouth to a normal healthy condition as far as possible. The following is a summary of the work accomplished during the year: examinations, 1,186; extractions, 1,312; fillings, 614; prophylaxis, 645; restorations, 462; treatments, 1,762; and patients treated, 2,380.

#### HYDROTHERAPY

During the year the hydrotherapy department has been under the direction of Mrs. Ina M. Mills at the East Group, and at the West Group Clarence A. Pond was in charge until September 15th. He was succeeded on September 29th by Eugene Madden. Six thousand seven hundred and sixty-three continuous baths were given to 81 different patients, — an average number of 83.49 per patient and a daily average of 18.48. The psychoses of patients receiving continuous baths were as follows: acute alcoholic hallucinosis, 1, or 1.28%; psychoses with other somatic diseases, 2, or 2.47%; manic-depressive psychoses, 47, or 58.02%; dementia praecox, 16, or 19.75%; paranoia and paranoid condition, 3, or 3.70%; psychoses with mental deficiency, 8, or 9.88%; and undiagnosed psychoses, 4, or 4.94%. Nine thousand five hundred and thirty-two wet sheet packs were given to 107 different patients, — an average number of 89.09 per patient, and a daily average of 26.04. The psychoses of patients receiving wet sheet packs were as follows: general paralysis, 3, or 2.80%; alcoholic psychoses, 5, or 4.67%; manic-depressive psychoses, 46, or 43.00%; dementia praecox, 26, or 24.30%; paranoid condition, 6, or 5.62%; epileptic psychoses, 4, or 3.74%; psychoses with psychopathic personality, 2, or 1.87%; psychoses with mental deficiency, 7, or 6.54%; undiagnosed psychoses, 5, or 4.67%; and psychosis with cerebral arteriosclerosis, psychosis with other somatic disease, and involution melancholia, each 1, or .93%. Seven thousand and nineteen tonic treatments were given to 41 different patients, — an average number of 171.18 treatments per patient, and a daily average of 19.18. These were as follows: needle sprays, 4,172; tub shampoos, 693; hair shampoos, 710; vapor baths, 24; saline baths, 436; neutral baths, 65; salt glows, 189; foot baths as preparatory treatments, 339; fomentations to spine, 61; fomentations to hepatic region, 6; fomentation to abdomen, 1; fomentation to thigh, 1; hot and cold to spine, 34; Sitz baths, 18; wet sheet packs as preparatory treatments, 4; pail douches, 119; rain douches, 128; and Neptune girdles, 21. The patients receiving tonic treatments represented psychoses as follows: alcoholic psychoses, 8, or 19.51%; manic-depressive psychoses, 23, or 56.09%; dementia praecox, 5, or 12.19%; psychosis with psychopathic personality, 1, or 2.44%; psychoses with mental deficiency, 2, or 4.88%; and undiagnosed psychoses, 2, or 4.88%. Three hundred and ninety-two colonic irrigations and enemata were given to eleven different patients, — an average number of 35.63 per patient, and a daily average of 1.07. Instruction was carried on as usual, and 162 lessons were given.

#### SCHOOL CLINIC

The School Clinic completed its tenth season of psychiatric service in the public schools of Somerville and Everett. The work is in charge of Alberta S. Guibord, M.D., of the hospital staff, assisted by Edith B. James, B.A., psychometrician. The social service investigations are made by the regular social service staff of this hospital under the direction of Miss Florence E. Armstrong. The school achieve-

ment tests were made by teachers especially trained and assigned for the purpose by the School Departments: Miss Julia G. Stockbridge of Everett and Miss Winifred Ford of Somerville.

The total number of pupils examined was 414, with the following diagnosis of intelligence: normal (I. Q. 90 to 109), 48, or 11.60%; dull normal (I. Q. 80 to 89), 90, or 21.74%; borderline (I. Q. 70 to 79), 140, or 33.81%; feeble-minded (I. Q. 60 and under), 121, or 29.23%; and deferred, doubtful, 15, or 3.62%. Twenty-five, or 6.04 per cent, were diagnosed as psychopathic or neurotic. The recommendations for school placements were as follows: special class, 149; institutional, 26; others, 239. The recommendations for medical attention were divided as follows: epilepsy, 2; chorea, 3; malnutrition, 152; orthopedic, 39; luetic, 2; visual defects, 91; hearing defects, 15; cardiac, 28; dental, 100; nose and throat, 58; tuberculosis, 3; endocrine, 10; speech, 11; general medical, 17.

The two following difficulties are especially noted this year: (1) The practical impossibility of obtaining admission to the State schools for mental defectives for the pupils whom we recommend to be sent. From the standpoint of the schools such advice is a meaningless gesture, since they cannot get it carried out and must keep the child in school or see it go out to make trouble outside. Two such instances, among several, are notable this year: two girls, aged 15 and 16 respectively, of low intelligence. Each of these girls became involved in disastrous sex affairs solely because the institutional care urgently advised by us and sought by the schools could not be obtained. The Social Service Department connected with Mental Diseases, under Miss Curtis, has responded loyally to requests for help in the community supervision of some of these cases, but many cases cannot be safeguarded by even the best supervision in the community. Institutional care alone is effective in safeguarding them and society. But at present, places for them are rarely available. (2) The other difficulty encountered is the hampering of our work by the amount of time required of our psychometrician in the examination of juvenile delinquent Court cases. She now has for schedule the hospital patients, the juvenile delinquents, and the school clinic, a schedule too heavy to be covered promptly by one person. The result is that the school clinic falls behind. We were obliged to omit a small number from the lists submitted by the schools the past school year. Each year the schools are making more and more practical use of our studies, chiefly in the establishment of more classes for practical vocational training and in ungrading those pupils who are uneven in academic achievement.

#### TRAINING SCHOOL FOR NURSES

As in the past several years, the work of the nursing service has been carried on under the direction of Miss Mary Alice McMahon, R. N., Principal of the School of Nursing. Nine students were graduated from the training school for psychiatric nurses this year, and are now employed in our wards. The third year of this school has begun with eleven students in the senior class, and thirty in the entering class. The entrance requirements have now been raised to include High School graduates only, and the course is given to all of the ward employees who have the proper educational qualifications. The practical work includes, in the wards, instruction, and actual nursing care of patients suffering from the various types of mental disease. Special attention is given to the nursing care of patients showing symptoms of excitement, depression, confusion, suicidal and homicidal tendencies and epilepsy. Each student receives special instruction in medical and surgical nursing, and practical work with acute and chronic bed cases.

Practical instruction is also given in hydrotherapy, physiotherapy, the preparation and serving of food, the preparation of surgical dressings, and assisting at operations, etc. Lectures, recitations, and demonstrations are held according to schedule. When the term of two years is completed, the pupils are thoroughly qualified, and they will receive, if their conduct and examinations have been satisfactory, a certificate to that effect. The graduates of this course are added to the list of eligibles for promotion in the hospitals.

The systematic instruction of attendant nurses, both male and female, not enrolled in other training school classes, is being continued along the lines prescribed

by the Committee on Training Schools, representing the Department of Mental Diseases, and 91 have received such instruction during the year. We have now in the ward service eight graduates of the Boston State Hospital Training School.

#### OCCUPATIONS AND INDUSTRIES

The work of the occupational therapy department at the hospital has been carried on during the year under the direction of Miss Ethel M. Anderson, head occupational therapist. At the present time the department consists of a head occupational therapist and nine occupational therapists, one of whom is temporary. Shop work in the West C, F, and G Buildings continues to be the most practical form of occupation for the men, affording a wider range of activity than is possible when working directly on the wards, and at the same time not attaining the proportions of an industrial shop. Kitchen cupboards and other simple articles for practical use are the height of the men's accomplishments in wood-work; rugs and runners are woven, and knotting, basketry, and painting are also done. Music and typewriting are being tried in an effort to present to certain patients normal forms of activity. Miss Philbrick carried on the physical education programs in the wards. The classrooms in the West B, and East D Buildings, for the women, are in daily use, and the hooking of rugs and wall hangings, weaving, braiding, knotting, and coloring are being carried on constantly, while needlework of all kinds, knitting, crocheting, mending, and other more limited activities are carried twice a day to the patients in the wards. At the times of special celebrations, such as Field Day, Christmas, etc., the filling of candy bags, peanut bags, etc., is a special feature. The library work is also an attraction. Branch libraries, separate from the patients' main library in West C, have been established in all the classrooms, East and West, from which the patients may choose books to be taken to the wards. Approximately 600 different patients have come to the department weekly during the year, with an average daily attendance, five days a week, of 80 men and 200 women. The estimated value of the articles produced during the year was \$1,405.54 and that of mending, \$358.40, a total of \$1,763.94.

The work of the industrial room for women has been carried on, as in the past several years, under the direction of Mrs. Madge B. Richardson. The patients are employed in basketry, rugmaking, lace-making, embroidery, knitting, crocheting, sewing, and mending. The estimated value of the articles produced in this department during the year is \$1,408.06 and in the sewing room \$5,807.17 (a total of \$7,215.23), exclusive of mending, the value of which is estimated at \$1,183.73, making a total of \$8,398.96. The industrial work for the men in the West Group has been directed during the year by Mr. James F. Hurley, as in several years past. This is done entirely in the basement of the B Building in the West Group, and includes shoe repairing and various other repair work, the manufacture of several kinds of brushes, brooms, coat hangers, hats, mattresses, pillows, and numerous other articles. The estimated value of articles produced during the year is \$3,927.37, and of renovation and repairs, \$3,553.29, a total of \$7,480.66. The estimated value of all articles produced during the year in the occupational and industrial departments of the hospital is \$12,548.14, and of renovation and repairs, \$5,095.42, making a total of \$17,643.56.

#### OCCUPATIONAL THERAPY CENTER AT CITY MILLS, MASSACHUSETTS

The past year at the Occupational Therapy Center at City Mills has been very nearly uneventful. The population has varied between nine and eleven patients, there being nine at the present time. During the year three patients were returned to the hospital because of a change for the worse in their mental condition or because the patient was an obvious misfit in the group. The fact cannot be over-emphasized that such a small group must be quite homogeneous in point of age, interests, and general adaptability to one another. One patient was returned to the care of her husband. A particularly good piece of social work was done in this connection, inasmuch as a home that had been entirely broken up through the patient's illness was reconstructed and a far better environment furnished for both patient and family. It is also true that every effort was made during the period of residence at City Mills to prepare this patient for resuming her domestic duties

on a higher plane than previously, and she has adjusted well to her place in the community. Another patient who had been at City Mills for several years has been placed out. Her long term of residence was due very largely to the fact that, being Swiss and having been a governess, it was most difficult to find people who would understand her background or anybody in these days who was engaging a superior governess. Her handicraft for a long time set the standard for all similar work in the Center. We were able to find friends, long lost from sight, who were of superior calibre and of deep human understanding, and who have taken her into their home and made her one of their family, while paying for her services. She has improved noticeably in spirits and appears at this time to have made an excellent adjustment in the home, where she has been for several months.

Several patients have enjoyed vacations varying from two and three days to two weeks. These excursions always serve as a trial period, with the thought that ultimately a permanent arrangement will be made, after the patient has attained a proper degree of stability.

The group has, as usual, been remarkably free from physical illness. In the emergency of one patient attempting suicide by drowning, a local physician responded immediately. His promptness and the cooperation of the hospital in returning the patient with great speed were doubtless responsible for saving her life. She is now entirely recovered and in the hospital. The cooperative services of Dr. Pease, one of our medical staff, have been granted to the Centre, and he now visits the patients there once a month and assumes the responsibility of supervising their physical and mental health. This is a great satisfaction.

During the year, the Division of Public Libraries of the Department of Education has loaned a number of books for therapeutic and recreational purposes at the Center. It is hoped that in this way some patients who have special interests may invest their time in improving their chances for employment. In any event, this excellent service not only gives great pleasure to the patients but also extends their mental horizons. The books include some on handicrafts, on garden making, and on the care of children and the home. They have all been greatly appreciated by the patients, who greet any new consignment with outbursts of enthusiasm.

We have had the services of Mrs. Barbara Waterman, occupational therapist throughout the year. She is a graduate of the Boston School of Occupational Therapy and has had experience with hospital patients. Her work has been excellent, and particularly commendable are her relations with the patients, who are fond of her, and whom she understands. During the year, we have had two sales, one in the spring of 1932 and one in the late fall. Both were held in the administration building of the Boston State Hospital, and the income from both these sales was approximately \$300. In addition to these, there has been spasmodic selling throughout the year, as usual. We have made a feature of children's dresses, which have gained considerable popularity. The patients have received compensation for their work, and there is no doubt that this has helped to maintain a good morale among them.

The Committee for the Center remains unchanged. It is as follows: Mrs. Sydney Dreyfus, Treasurer; Mrs. Horatio Lamb; Mrs. Henry Tudor; Mrs. Douglas A. Thom; and Dr. Arthur McGugan. The head social worker of the hospital acts as Chairman, and is supervisor of the Center.

#### AGRICULTURAL ACTIVITIES FOR THE YEAR

The work of the farm has been carried on under the direction of Mr. Ralph B. Littlefield throughout the year. A total of 118 $\frac{3}{8}$  acres was under cultivation. This consisted of 40 $\frac{1}{4}$  acres devoted to gardening and 78 $\frac{1}{2}$  acres of meadowland. The estimated value of farm products for the year was \$14,553.45.

#### FINANCIAL STATEMENT

The maintenance appropriation for the year was \$765,650.00, with \$35,241.26 brought forward from the preceding year, making a total of \$800,891.26. Based on the average daily population of the hospital, 2,067.64, the per capita cost of maintenance for the year was \$361.942, or \$6.9223 per week. The per capita cost for 1931 was \$368.57, or \$7.078 per week. Although the average daily number of patients was lower this year than in 1931, the decline in price of food-stuffs and commodities in general has been great enough to more than offset it.



	Amount Expended	Per Capita	Percentage of Total
Personal services	\$432,566.04	\$209.208	57.802
Travel, transportation and office expenses	7,217.18	3.490	.964
Food	129,039.74	62.409	17.243
Clothing and materials	23,817.05	11.519	3.183
Religious instruction	2,079.98	1.006	.278
Furnishings and household supplies	34,485.82	16.679	4.608
Medical and general care	19,325.32	9.346	2.582
Heat and other plant operation	63,435.62	30.680	8.476
Farm	4,583.63	2.217	.613
Garage and grounds	2,960.91	1.432	.395
Repairs, ordinary	17,866.63	8.641	2.388
Repairs and renewals	10,989.48	5.315	1.468
Total	\$748,366.40	\$361.942	100.000

Doubtless the per capita cost would be lower were it not for the fact that a large percentage of our patients are of the infirm type, and the old ward buildings require a larger staff of employees because of their arrangement, and increasingly extensive repairs from year to year.

#### GENERAL OPERATIONS FOR THE YEAR

The entertainment, as well as the occupation and employment, of patients has been given careful consideration. Moving picture performances have been well attended throughout the year, and dances held from time to time. Practically every ward in the hospital is now equipped with radios, which furnish perhaps more pleasure to the patients than any other form of entertainment. Christmas festivities in the East Group chapel were attended by a large number of patients and very much enjoyed. Field Day exercises were held at the West Group on June 30th. There was a baseball game, and athletic events were arranged for both patients and employees, with prizes. Refreshments were served and there was music by a sixty-piece band from the House of the Angel Guardian School. Patients were transported from the East Group in busses from the Boston Elevated Railway Company. The expenses were defrayed by the Employees' Club.

Religious services have been held as usual during the year. We are indebted for their interest in the welfare of our patients to Rev. Frederick G. M. Driscoll, Rev. Harold H. Cramer, Rabbi Moses L. Sedar, and Rev. Frank H. Stedman.

On December 31st the hospital was visited by members of the Legislative Committee on Public Welfare and the House Ways and Means Committee. Representatives of the Department of Mental Diseases have visited the hospital from time to time during the year.

In the last year's report, attention was called to the fact that the old Austin farm house had been removed from its original site to a location just inside of the hospital entrance to the East Group on Canterbury Street. The remodelling of this building, together with considerable increase in its capacity by an addition which practically doubles its size, was finished in December 1931 and the building was occupied on the 21st of that month. This gives us for the first time adequate staff accommodations for the East Group.

A large amount of grading was completed during the year around the East Group staff house, the East A Building and the East Group chapel. Considerable grading was also done around the new administration building during the summer. This was practically complete at the end of the year.

The large hill immediately south of the East B Building was removed during the summer and the material used in filling in around the new highway.

The new dining room in Ward 2 of the West A Building was completed and occupied in December, 1931.

The stone fence on Harvard Street, between Morton and Walk Hill, and a similar fence on Austin Street in the East Group were removed during the summer and replaced by the hospital standard iron fence by the Quincy Ornamental Iron Works, which also erected fencing on Canterbury Street in front of the Superintendent's residence. The same firm also erected a woven wire fence six feet in height, with three strands of barbed wire on top, on Canterbury Street, extending from the Superintendent's house to the corner of Walk Hill Street.

A new sound machine was bought for the East Group chapel, two being necessary for use in that building.

Preparatory to the removal of the corridor between the East Group chapel and the A Building, it was necessary to lower the steam line in the old corridor. This work was completed during April.

The work of remodelling the West E I Building was completed during the summer and this building was occupied for the use of male tuberculous patients on May 17th. This will give us adequate accommodations for this purpose, which the hospital has never had before.

The old administration building in the East Group was entirely torn down during the summer and a large number of patients have been cleaning up the brick removed from the foundation. This will be used for building purposes elsewhere at some future time.

Foundations for the new greenhouse, southwest of the kitchen and dining room building in the East Group, were completed during the summer, and the work of erecting this building was well under way at the end of the year.

Two toilet rooms were installed in the East Group chapel building during the summer.

A new extractor was added to the laundry equipment.

Owing to the necessity of installing two moving picture machines instead of one as heretofore over the entrance of the East Group chapel, it has been necessary for us to do considerable remodelling of that building. The booth was enlarged to such an extent as to accommodate two machines and the windows on either side of the entrance were removed and doorways substituted. This work was completed during November.

During the month of August, a hair dressing room was opened in the basement of the East C Building. This is in charge of an attendant who has had considerable experience as a hair-dresser, and it has been a wonderful thing for the patients in the East Group.

The tubs have been removed from the old continuous bath room in the East G Building, which has been remodelled for use for minor surgery, dressings, etc.

The new highway extending from the intersection of Canterbury Street and Blue Hill Avenue directly through the grounds of the East and West Groups of the hospital to Cummins Highway was completed during the summer and opened for use on October 29th.

Chapter 420 of the Acts of 1920 authorized the Department of Public Works to take such public and private lands as might be necessary for this purpose. As a result of this legislative enactment, the hospital lost 1.157 acres of land in the East Group and 10.7 acres in the West Group. This reduces our acreage from 236.517 to 224.657, of which 45.977 is in the East Group and 178.68 in the West Group.

The new reception building was practically completed at the end of the year, except for the linoleum in the wards, the electric lighting fixtures, and some of the equipment which is being installed in the basement. We hope to occupy this new building on or before February 1st, 1933.

Active work was instituted on November 7 on the new roadway which will extend from Harvard Street west of the administration building to the new reception building and from that point on to the West G Building.

New linoleum was installed during the month of October in the Employees' Club house in the West Group, and several other improvements have been made there which make the building much more attractive in appearance.

The following painting was done during the year: in the East Group, the interior of the kitchen and dining room building, and the East D, F, and G Buildings, the exterior of the East A and C Buildings and the East nurses' home; in the West Group, the interior of Ward 4 in the West B Building, the West G Building, and the exterior of the West Group farm house.

The channel of the Canterbury Branch of Stony Brook is still badly in need of attention, as it is obstructed with weeds. It has not been cleaned out by the City of Boston since 1926.

At the request of the Department of Mental Diseases to have the employees of the hospital contribute one day's pay to the State Employees' Unemployment

Fund, I have to report that the sum of \$1,280.98 was contributed to that fund by the employees of the Boston State Hospital.

It is with great regret that I report that Miss Adeline J. Leary, who has been in the employ of the institution since November 8, 1897, and has held the position of principal bookkeeper and treasurer very efficiently since December 11, 1919, retired from this service on November 29, 1932, having reached the age limit necessitating a discontinuance of her work here. Her place was filled on November 30th by the appointment of Miss Rose J. Covino, of 41 Waverly Street, Everett. Miss Covino has passed several Civil Service examinations and has been a clerk in the treasurer's office here since March 29, 1929.

#### DEVELOPMENT OF THE HOSPITAL

If this institution is to be brought up to date and placed on a level with the best mental hospitals of the day, it will be necessary to do many things.

The grounds are not properly lighted at night, and our employees, who have to walk long distances to reach the car line, have been assaulted from time to time in the dark.

A complete system of roads and walks has never been installed, and the attendants working in the West Group cannot get to the car line at certain seasons of the year without walking through the mud or snow.

We have over 600 patients housed in five stucco buildings which are not fire-proof, and which constitute a menace to the safety of the hospital. These buildings have wooden floors, wooden stairways, an obsolete system of electric wiring, and cannot be equipped with effective means of fire protection. Shortly after the disastrous Scobey Hospital fire, the Fire Commissioner of the City of Boston recommended that "All old buildings, wooden and stucco, should be demolished and buildings of 1st class fireproof construction be erected in their stead."

In the ward buildings, in the immediate proximity of patients, many of whom are noisy and violent, one hundred and twenty-one employees are housed. Forty-seven of these employees are living in attics, some of which are unfinished in part and are not suitable for occupancy. They are, furthermore, living under conditions which would be highly undesirable, if not actually dangerous, in the event of fire. Buildings for the accommodation of these people should be provided for.

As a result of conditions representing various stages in the development of this institution, the power plant in the East Group furnishes the hospital with both direct and alternating current. Practically the entire East Group is supplied with direct current, and the West Group with alternating. The result is that we have to run two generators in the daytime and two in the night, whereas otherwise one would be sufficient. The erection of a new and modern type of power plant would enable us to effect great economies.

Attention should be called to the fact that this hospital has no centrally located assembly hall large enough to provide for the needs of the whole hospital and furnish our patients with proper facilities for religious services, moving picture shows and other entertainments, etc.

A laboratory building has never been erected at this hospital. No building for industrial or occupational therapy, no suitable or adequate quarters for employees, and no separate accommodations for the care of the tuberculous cases have been provided. To comply with the laws of the Commonwealth, we need a paint shop in a separate building. We also need a garage large enough to accommodate the cars and trucks belonging to the State as well as to some of our medical officers and employees. Cottages should be erected for the steward, chief engineer, head farmer, various medical officers, etc.

In view of these facts, I would most respectfully suggest the advisability of starting upon some course of construction and development at this institution without delay. The procedure suggested is the completion of a program which should have been inaugurated and carried out many years ago. It is, of course, understood that this cannot all be done at once. For immediate consideration I would suggest the following:

*Building for 84 Employees, and West Group Medical Office.* Adequate accommodations have never been available for the employees in the West Group of the hospital, and the time has come when this situation should be remedied, while the

cost of construction is so low. I regret to say that we still have nearly fifty people housed in the unfinished attics of the old stucco buildings. In the West C and D buildings these can be reached only by going through the wards. This arrangement has led to serious complications from time to time in the past. The rooms in these attics are not fit for occupancy and it is practically impossible to keep them free from vermin. It has been impossible to retain in the service for any length of time persons who are assigned to these attics for quarters. There are nearly 125 employees living in ward buildings. The West G Building, for instance, which houses all of the noisy, destructive, and violent male patients in the West Group, has accommodations in the wards for seven male attendants. There are 48 employees in the West D Building, which was designed for the use of patients only. We have never had anything like sufficient accommodations for married people. Attention should be called to the fact that we have no suitable accommodations available anywhere for the female employees who will work in the new reception building. It will be necessary for us to house them in the East Group. Some will have rooms in the nurses' home, some will have to be housed with the domestics, and others will have to be assigned quarters in the attic floor of the East F Building, the use of which was given up some time ago. For these reasons I would recommend a building for 84 employees, including 16 married couples — the first floor to be used for medical office space for the West Group. Our office accommodations in the old building erected by the City of Boston many years ago are, and always have been, entirely inadequate, besides being in the wrong location. We propose to take advantage of the necessity of erecting new buildings for employees to remedy this situation.

*Building for 149 Male Employees.* A building for 149 male employees will be necessary to house the male employees now living in attics, ward buildings, and the old farm cottage. The present accommodations for these men are very unsatisfactory. There is no space available anywhere for the male employees who will work in the new reception building, and they will have to be assigned to quarters in one of the wards buildings — space which is now used for patients and not fitted in any way for employees.

*Road Construction.* There is an enormous amount of road building and grading to be done in the grounds of the Boston State Hospital. Practically no permanent roads have ever been constructed here. Owing to the fact that we have had so few able-bodied male patients that could work outside, grading that should have been finished years ago has not been completed as yet. The grading around the East B Building, which was finished in 1911, has never been completed. We are getting so far behind that it has been felt necessary to ask for an appropriation for building roads. We have not been able as yet to do anything towards getting a road from Harvard Street to the entrance of the new East Group office building. There has never been anything more than a cinder road leading from the corner of Harvard and Morton streets to the West Group, which houses over 1,600 patients, nor has there ever been any sidewalk leading to that Group. The location of the new reception building will make it necessary to build a new road leading to the West Group buildings. In view of the fact that we have over 75,000 visitors at the hospital during the course of a year, it is felt that something should be done to provide easier access to our wards. The two roads in question mean about one mile of rather difficult construction. It would take us quite a number of years to do this work, which would mean neglecting many other things that cannot be very well overlooked. Although twice that amount would be necessary to build roads such as we should have, an appropriation of \$25,000 for this purpose would put us in a position to get a start on this construction and would be of very great assistance.

*Root Cellar.* No suitable vegetable storage has ever been provided for this institution. The space now used for this purpose in the basement of the East Group storehouse is entirely inadequate and always has been. It is, furthermore, not at all adapted to the purpose in question. Space for general storage is also much needed. The indications are at the present time that it will be necessary for us to rent space outside the institution for the storage of root crops. Under these circumstances, it would seem to be economical and advisable to provide

accommodations at this time for the storage of vegetables and solve this problem for all time.

*Laboratory and Research Building.* We are badly in need of a laboratory and mortuary building. The only mortuary space we have, and that is far from being satisfactory, is in a small addition to one of the ward buildings. It is not possible to conceive of any worse arrangement than this. The presence of hearses and undertakers' wagons in the immediate vicinity of ward buildings is highly undesirable. The only laboratory space that we have is in the basement of one of the East Group ward buildings. It is so low that the pathologists have complained frequently of the dampness, and have felt that it injured their health. We should have a new laboratory and mortuary building far removed from any of the ward buildings and located in such a way that it could be approached from one of the streets adjoining the hospital without necessitating the presence of hearses, undertakers' wagons, etc., in the neighborhood of any of our ward buildings, particularly those which house depressed patients.

During the last few years, some very important researches have been carried out in the wards of our hospital by the Department under the direction of Dr. Myerson. This work should be encouraged in every way and it is our feeling that it should be developed as rapidly as possible. It cannot be done without some kind of facilities for laboratory space, and we feel that this should be taken care of in the building asked for.

It will be quite logical to combine the research work with our own laboratory accommodations. The mortuary should be in this building and all of the autopsies done there. These two purposes can be met by the building which we are asking for, although, if anything, it is planned on entirely too small a scale.

*Three Cottages for Physicians.* We have never had suitable accommodations for the members of the medical staff. Three of our married physicians are living in ward buildings, in quarters which are far from being commodious. The presence of infant children renders this exceedingly difficult. I should hate to lose the services of these men, but cannot very seriously criticize them for looking for openings in some of the other hospitals in this State which do have comfortable quarters for doctors. In view of these facts, I feel that it is very necessary to build at least three cottages which should cost not less than \$10,000 each. It would be inadvisable, under the existing circumstances, for the hospital to attempt to do any of this construction, which should all be covered by contract.

*Flatwork Ironer.* This is needed to complete our laundry equipment.

*Fencing.* No provision has been made for installing a fence on Walk Hill Street between Canterbury Street and the old stone fence in front of the West Group administration building. This is very important on account of the necessity of protecting our gardens, which have been raided at very frequent intervals by trespassers.

Respectfully submitted,

JAMES V. MAY, *Superintendent.*

## VALUATION

November 30, 1932

REAL ESTATE	
Land, 224.66 acres . . . . .	\$ 632,034.45
Buildings . . . . .	3,053,909.76
	<hr/>
	\$3,685,944.21
PERSONAL PROPERTY	
Travel, transportation and office expenses . . . . .	\$796.64
Food . . . . .	20,903.73
Clothing and materials . . . . .	22,836.75
Furnishings and household supplies . . . . .	260,404.56
Medical and general care . . . . .	16,509.30
Heat and other plant operation . . . . .	4,599.25
Farm . . . . .	11,605.24
Garage and grounds . . . . .	9,978.58
Repairs. . . . .	12,497.76
	<hr/>
	\$360,131.81
SUMMARY	
Real estate . . . . .	\$3,685,944.21
Personal property . . . . .	360,131.81
	<hr/>
	\$4,046,076.02

## FINANCIAL STATEMENT

To the Department of Mental Diseases:

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1932.

CASH ACCOUNT  
Receipts

<i>Income</i>		
Board of Patients . . . . .		\$77,362.07
Personal services		
Reimbursement from Board of Retirement . . . . .		296.68
Sales:		
Travel, transportation and office expenses . . . . .	\$140.76	
Food . . . . .	265.79	
Medical and general care . . . . .	2.00	
Garage, and grounds . . . . .	1.00	
Repairs, ordinary . . . . .	29.83	
Total sales . . . . .		439.38
Miscellaneous:		
Interest on bank balances . . . . .	\$238.28	
Rent . . . . .	120.00	
		358.28
Total income . . . . .		\$78,456.41

MAINTENANCE

Balance from previous year, brought forward . . . . .		\$35,241.26
Appropriations, current year . . . . .		765,650.00
Total . . . . .		\$800,891.26
Expenses (as analysed below) . . . . .		748,375.02
Balance reverting to Treasury of Commonwealth . . . . .		\$52,516.24

Analysis of Expenses

Personal services . . . . .		\$432,566.04
Religious instruction . . . . .		2,079.98
Travel, transportation and office expenses . . . . .		7,217.18
Food . . . . .		129,039.74
Clothing and materials . . . . .		23,817.05
Furnishings and household supplies . . . . .		34,485.82
Medical and general care . . . . .		19,325.32
Heat and other plant operation . . . . .		63,435.62
Farm . . . . .		4,583.63
Garage and grounds . . . . .		2,960.91
Repairs ordinary . . . . .		17,865.63
Repairs and renewals . . . . .		10,998.10
Total expenses for Maintenance . . . . .		\$748,375.02

SPECIAL APPROPRIATIONS

Balance December 1, 1931 . . . . .		\$384,176.77
Expended during the year (see statement below) . . . . .	\$267,179.01	
Reverting to Treasury of Commonwealth . . . . .	4,766.52	
		271,945.53
Balance November 30, 1932, carried to next year . . . . .		\$112,231.24

OBJECT	Act or Resolve	Whole Amount	Expended during Fiscal Year	Total Expended to Date	Balance at End of Year
Renewing of Steam Lines . . . . .	1929-146				
	1930-115	\$67,400.00	\$4,503.70	\$65,344.77	\$2,055.23*
Administration Building . . . . .	1928-127				
	1930-115	180,000.00	4,801.67	177,288.71	2,711.29*
Employees' Building, Greenhouse, etc. . . . .	1930-115				
	1931-460	163,000.00	3,899.99	157,112.82	5,887.18
Reception Building, equipment . . . . .	1931-268	400,000.00	239,547.25	293,658.74	106,341.26
Erection of Fence . . . . .	1931-245	15,000.00	14,426.40	14,997.20	2.80
		\$825,400.00	\$267,179.01	\$708,402.24	\$116,997.76

Balance reverting to Treasury of the Commonwealth during year (mark item with *).	\$4,766.52
Balance carried to next year . . . . .	\$112,231.24
Total as above . . . . .	\$116,997.76

PER CAPITA

During the year the average number of inmates has been 2,067.64  
 Total cost of maintenance, \$748,375.02.  
 Equal to a weekly per capita cost of \$6.9605.  
 Receipt from sales, \$439.38.  
 Equal to a weekly per capita of \$.00408.  
 All other institution receipts, \$78,017.03.  
 Equal to a weekly per capita of \$.72562.  
 Net weekly per capita of \$6.23080.

Respectfully submitted,  
 ROSE J. COVINO,

*Treasurer.*

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION  
 PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

Data correct at end of hospital year November 30, 1932

1. Date of opening as a hospital for mental diseases, December 11, 1839.

2. Type of hospital: State, since December 1, 1908.

3. Hospital plant:

Value of hospital property:

Real estate, including buildings . . . . .	\$3,685,944.21
Personal property . . . . .	360,131.81

Total . . . . .

\$4,046,076.02

Total acreage of hospital property owned, 224.66 acres.

Total acreage under cultivation during previous year, 118.38 acres.

4. Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	1	—	1	—	—	—
Assistant Superintendent . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	5	5½	10½	1	½	1½
Senior physician, pathologist . . . . .	—	1	1	—	—	—
Total physicians . . . . .	7	6½	13½	1	½	1½
Stewards . . . . .	1	—	1	—	—	—
Resident dentists . . . . .	1	—	1	—	—	—
Pharmacists . . . . .	1	—	—	—	—	—
Graduate nurses . . . . .	—	22	22	—	—	—
Other nurses and attendants . . . . .	119	125	244	—	—	—
Occupational therapists . . . . .	—	11	11	—	—	—
Industrial therapists . . . . .	3	—	3	—	—	—
Social workers . . . . .	—	5	5	—	—	—
All other officers and employees . . . . .	90	84	174	—1½	2	½
Total officers and employees . . . . .	222	253½	475½	—½	2½	2

NOTE: — The following items, 5-8 inclusive, are for the year ended September 30, 1932.

5. Census of patient population at end of year:

	Actually in Hospital			Absent from Hospital but Still on Books		
	M.	F.	T.	M.	F.	T.
WHITE						
Insane . . . . .	810	1,174	1,984	89	115	204
Mental defectives . . . . .	4	7	11	—	—	—
Alcoholics . . . . .	2	1	3	—	—	—
All other cases . . . . .	4	3	7	3	1	4
Total . . . . .	820	1,185	2,005	92	116	208
OTHER RACES						
Insane . . . . .	23	34	57	5	4	9
All other cases . . . . .	1	—	1	—	2	2
Total . . . . .	24	34	58	5	6	11
Grand Total . . . . .	844	1,219	2,063	97	122	219

- |   |        |          |          |
|---|--------|----------|----------|
| 6. Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . . | 72     | 239      | 311      |
| 7. Other patients employed in general work of hospital on date of report . . . . .                                    | 455    | 343      | 798      |
| 8. Average daily number of all patients actually in hospital during year . . . . .                                    | 848.76 | 1,205.91 | 2,054.67 |

TABLE 2. *Financial Statement*

See Treasurer's report for data requested under this table.

NOTE: — The following tables, 3-19 inclusive, are for the statistical year ended September 30, 1932.

TABLE 3. *Movement of Patient Population*

	REGULAR COURT COMMITMENT (INSANE)			TEMPORARY CARE			OBSERVATION			TOTAL ON BOOKS		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1931												
Admissions during year:												
First admissions	956	1,332	2,288	1	1	2	16	5	21	973	1,338	2,311
Readmissions	208	225	433	67	39	106	18	3	21	293	267	560
Transfers from other hospitals for mental diseases	33	51	84	15	17	32	20	18	38	68	86	154
Total received during year	21	20	41	-	-	-	-	-	-	21	20	41
Total on books during year	262	296	558	82	56	138	38	21	59	382	373	755
Discharged from books during year:	1,218	1,628	2,846	83	57	140	54	26	80	1,355	1,711	3,066
As recovered	28	39	67	6	1	7	5	3	8	39	43	82
As improved	44	37	81	10	6	16	8	-	8	62	43	105
As unimproved	9	13	22	41	30	71	4	-	4	54	43	97
As without psychosis	3	4	7	17	11	28	20	20	40	40	35	75
Transferred to other hospitals for mental diseases	38	33	71	-	-	-	-	-	-	38	33	71
Died during year	171	163	334	9	9	18	1	1	2	181	173	354
Total discharged, transferred and died during year	293	289	582	83	57	140	38	24	62	414	370	784
Insane patients remaining on books of hospital at end of hospital year:												
In hospital	828	1,217	2,045	-	-	-	16	2	18	844	1,219	2,063
On parole or otherwise absent	97	122	219	-	-	-	-	-	-	97	122	219
Total	925	1,339	2,264	-	-	-	16	2	18	941	1,341	2,282



TABLE 4. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States . . . . .	114	102	216	42	44	34	39	33	29
Africa . . . . .	2	—	2	1	1	1	—	—	—
Canada <sup>1</sup> . . . . .	17	26	43	23	20	16	21	23	18
Cuba . . . . .	—	—	—	—	—	—	—	1	—
Denmark . . . . .	1	1	2	1	1	1	1	1	1
England . . . . .	7	8	15	10	12	7	11	9	6
Finland . . . . .	1	—	1	1	1	1	—	—	—
France . . . . .	1	—	1	1	1	1	—	—	—
Germany . . . . .	2	3	5	3	3	2	5	6	5
Greece . . . . .	2	—	2	1	1	1	—	—	—
Holland . . . . .	—	—	—	1	—	—	—	—	—
India . . . . .	1	—	1	—	—	—	—	—	—
Ireland . . . . .	30	53	83	65	67	55	84	88	78
Italy . . . . .	14	12	26	16	16	16	16	15	15
Poland . . . . .	1	3	4	1	1	1	2	2	2
Portugal . . . . .	—	3	3	—	—	—	4	3	3
Roumania . . . . .	—	1	1	—	—	—	1	1	1
Russia . . . . .	6	2	8	12	11	11	8	6	6
Scotland . . . . .	3	2	5	6	5	3	4	2	2
Spain . . . . .	—	1	1	—	—	—	1	2	1
Sweden . . . . .	2	2	4	3	3	3	5	4	4
Wales . . . . .	—	—	—	—	—	—	—	1	—
West Indies <sup>2</sup> . . . . .	—	3	3	1	—	—	2	2	1
Other countries . . . . .	3	2	5	2	2	2	3	3	3
Unascertained . . . . .	1	1	2	18	19	16	18	22	18
Total . . . . .	208	225	433	208	208	171	225	225	193

<sup>1</sup>Includes Newfoundland.<sup>2</sup>Except Cuba and Porto Rico.

TABLE 4-A. *Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born.*

AGE GROUPS	NATIVE BORN										FOREIGN BORN						Nativity unascertained	
	Aggregate			Total			PARENTAGE				TIME IN U. S. BEFORE ADMISSION.							
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Under 15 years . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
15-19 years . . .	5	5	10	4	3	7	2	2	4	3	5	8	13	2	1	3	1	4
20-24 years . . .	9	12	21	6	12	18	3	2	5	5	10	13	23	3	3	6	4	7
25-29 years . . .	12	14	26	11	12	23	2	2	4	3	5	8	13	2	2	4	7	11
30-34 years . . .	10	13	23	6	6	12	1	1	2	2	3	3	6	1	1	2	5	8
35-39 years . . .	11	12	23	5	6	11	1	1	2	2	3	3	6	1	1	2	5	8
40-44 years . . .	17	13	30	11	8	19	4	3	7	2	2	4	6	1	1	2	5	8
45-49 years . . .	10	14	24	7	6	13	2	2	4	2	3	5	8	1	1	2	5	8
50-54 years . . .	23	29	52	13	10	23	7	4	11	3	3	6	8	1	1	2	5	8
55-59 years . . .	19	16	35	10	8	18	3	3	6	2	2	4	3	1	1	2	5	8
60-64 years . . .	22	15	37	7	4	11	4	1	5	2	3	5	8	1	1	2	5	8
65-69 years . . .	23	27	50	11	9	20	1	4	5	2	6	8	13	1	1	2	5	8
70 years and over	46	54	100	19	17	36	6	6	12	4	6	10	17	6	6	12	27	36
Total. . .	208	225	433	114	102	216	34	29	63	38	41	79	93	122	215	92	121	213

TABLE 5. *Citizenship of First Admissions*

	Males	Females	Total
Citizens by birth . . . . .	114	102	216
Citizens by naturalization . . . . .	42	52	94
Aliens . . . . .	40	36	76
Citizenship unascertained . . . . .	12	35	47
Total . . . . .	208	225	433

TABLE 6. *Psychoses of First Admissions*

PSYCHOSES	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses. . . . .				2	—	2
2. Senile psychoses . . . . .				6	26	32
3. Psychoses with cerebral arteriosclerosis . . . . .				78	70	148
4. General paralysis . . . . .				17	5	22
5. Psychoses with cerebral syphilis . . . . .				2	—	2
6. Psychoses with Huntington's chorea . . . . .				—	1	1
7. Psychoses with brain tumor . . . . .				1	1	2
8. Psychoses with other brain or nervous diseases, total. . . . .				4	8	12
Paralysis agitans . . . . .	—	1	1			
Multiple sclerosis . . . . .	1	—	1			
Other diseases. . . . .	3	7	10			
9. Alcoholic psychoses, total. . . . .				22	7	29
Korsakow's psychosis . . . . .	6	3	9			
Acute hallucinosis . . . . .	8	3	11			
Other types, acute or chronic . . . . .	8	1	9			
10. Psychoses due to drugs and other exogenous toxins, total . . . . .				3	2	5
Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined . . . . .	3	—	3			
Gases . . . . .	—	1	1			
Other exogenous toxins . . . . .	—	1	1			
11. Psychoses with pellaagra . . . . .				—	—	—
12. Psychoses with other somatic diseases, total. . . . .				—	8	8
Exhaustion delirium . . . . .	—	1	1			
Delirium of unknown origin. . . . .	—	1	1			
Cardio-renal diseases . . . . .	—	2	2			
Other diseases or conditions. . . . .	—	4	4			
13. Manic-depressive psychoses, total . . . . .				42	56	98
Manic type . . . . .	7	13	20			
Depressive type . . . . .	32	33	65			
Other types . . . . .	3	10	13			
14. Involution melancholia . . . . .				1	2	3
15. Dementia praecox (schizophrenia) . . . . .				5	5	10
16. Paranoia and paranoid conditions . . . . .				5	18	23
17. Epileptic psychoses . . . . .				1	3	4
18. Psychoneuroses and neuroses, total . . . . .				1	—	1
Psychasthenic type (anxiety and obsessive forms) . . . . .	1	—	1			
19. Psychoses with psychopathic personality . . . . .				2	—	2
20. Psychoses with mental deficiency . . . . .				7	4	11
21. Undiagnosed psychoses . . . . .				6	2	8
22. Without psychosis, total . . . . .				3	7	10
Epilepsy without psychosis . . . . .	—	1	1			
Alcoholism without psychosis . . . . .	1	2	3			
Psychopathic personality without psychoses . . . . .	1	—	1			
Mental deficiency without psychosis . . . . .	—	3	3			
Others . . . . .	1	1	2			
Total . . . . .				208	225	433

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			Traumatic			Senile			With cerebral arteriosclerosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	10	10	20	—	—	—	—	1	1	3	4	7
English	10	16	26	—	—	—	—	2	2	8	4	12
Finnish	1	—	1	—	—	—	—	—	—	—	—	—
French	1	—	1	—	—	—	—	—	—	1	—	1
German	3	4	7	—	—	—	—	1	1	1	1	2
Greek	2	1	3	—	—	—	—	—	—	—	—	—
Hebrew	13	9	22	—	—	—	1	—	1	4	2	6
Irish	63	103	166	2	—	2	3	14	17	28	28	56
Italian <sup>1</sup>	16	16	32	—	—	—	—	—	—	6	4	10
Lithuanian	2	1	3	—	—	—	—	—	—	1	—	1
Magyar	—	1	1	—	—	—	—	—	—	—	—	—
Pacific Islander	1	—	1	—	—	—	—	—	—	—	—	—
Portuguese	—	3	3	—	—	—	—	—	—	—	2	2
Scandinavian <sup>2</sup>	3	5	8	—	—	—	—	—	—	2	—	2
Scotch	3	2	5	—	—	—	—	—	—	1	1	2
Slavonic <sup>3</sup>	—	1	1	—	—	—	—	—	—	—	—	—
Spanish	1	1	2	—	—	—	—	—	—	1	1	2
Other specific races	—	1	1	—	—	—	—	—	—	—	—	—
Mixed	72	47	119	—	—	—	2	7	9	18	22	40
Race unascertained	7	4	11	—	—	—	—	1	1	4	1	5
Total	208	225	433	2	—	2	6	26	32	78	70	148

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses* — Continued

RACE	General paralysis			With cerebral syphilis			With Huntington's chorea			With brain tumor			With other brain or nervous diseases			Alcoholic		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
English	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	1	1	2
Finnish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Greek	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Irish	3	—	3	1	—	1	—	—	—	—	—	1	2	3	—	8	6	14
Italian <sup>1</sup>	2	2	4	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Magyar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Spanish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	7	2	9	—	—	—	—	—	—	—	—	2	3	5	—	8	—	8
Race unascertained	1	—	1	1	—	1	—	1	1	1	1	2	—	—	—	—	—	—
Total	17	5	22	2	—	2	—	1	1	1	1	2	4	8	12	22	7	29

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Norwegians, Danes, and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Due to drugs and other exogenous toxins			With other somatic diseases			Manic-depressive			Involution melancholia			Dementia praecox			Paranoia and paranoid conditions		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	2	2	—	—	—	—	1	1	—	—	—
English	—	1	1	—	—	—	1	3	4	—	—	—	—	—	—	—	1	1
Finnish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	1	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	1	1	1	—	1	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	2	5	7	—	—	—	2	1	3	—	—	—
Irish	1	—	1	—	4	4	8	28	36	—	1	1	2	3	5	—	8	8
Italian <sup>1</sup>	—	—	—	—	—	—	4	9	13	—	—	—	—	—	—	2	1	3
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
Magyar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Pacific Islander	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Scandinavian <sup>2</sup>	—	—	—	—	—	—	1	2	3	—	—	—	—	—	—	—	2	2
Scotch	—	—	—	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spanish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Mixed	2	—	2	—	3	3	22	6	28	1	1	2	1	—	1	2	2	4
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3	2	5	—	8	8	42	56	98	1	2	3	5	5	10	5	18	23

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Epileptic psychoses			Psycho-neuroses and neuroses			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	2	1	3	—	1	1
English	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	1	1
Finnish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Irish	1	3	4	—	—	—	1	—	1	3	1	4	2	1	3	1	3	4
Italian <sup>1</sup>	—	—	—	—	—	—	—	—	—	2	2	4	—	—	—	1	—	1
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Magyar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spanish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	—	—	—	1	—	1	1	—	1	2	—	2	2	—	2	1	1	2
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1	3	4	1	—	1	2	—	2	7	4	11	6	2	8	3	7	10

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 8. Age of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	6	26	32	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	78	70	148	—	—	—	—	—	—	—	—	—
4. General paralysis . . . . .	17	5	22	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis . . . . .	2	—	2	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	1	1	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	1	1	2	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	4	8	12	—	1	1	—	—	—	—	—	—
9. Alcoholic . . . . .	22	7	29	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	3	2	5	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	8	8	—	—	—	—	—	—	—	1	1
13. Manic-depressive . . . . .	42	56	98	—	—	—	3	3	6	5	9	14
14. Involution melancholia . . . . .	1	2	3	—	—	—	—	—	—	—	—	—
15. Dementia præcox . . . . .	5	5	10	—	—	—	1	1	2	1	—	1
16. Paranoia and paranoid conditions . . . . .	5	18	23	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	1	3	4	—	—	—	—	—	—	—	1	1
18. Psychoneuroses and neuroses . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	2	—	2	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	7	4	11	1	—	1	2	—	2	1	—	1
21. Undiagnosed psychoses . . . . .	6	2	8	—	—	—	—	—	—	1	—	1
22. Without psychosis . . . . .	3	7	10	—	—	—	1	1	2	1	1	2
Total . . . . .	208	225	433	1	1	2	5	5	10	9	12	21

TABLE 8. Age of First Admissions Classified with Reference to Principal Psychoses — Continued

	25-29 years			30-34 years			35-39 years			40-44 years			45-49 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
3. With cerebral arteriosclerosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
4. General paralysis . . . . .	—	—	—	—	—	—	2	2	4	3	1	4	2	—	2
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
6. With Huntington's chorea . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	1	—	1	—	—	—	—	2	2	—	—	—	—	2	2
9. Alcoholic . . . . .	2	1	3	3	—	3	1	—	1	6	1	7	3	1	4
10. Due to drugs and other exogenous toxins . . . . .	—	1	1	1	—	1	1	—	1	1	1	2	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	—	—	—	1	1	—	—	—	—	1	1	—	—	—
13. Manic-depressive . . . . .	3	6	9	2	8	10	5	3	8	5	6	11	1	5	6
14. Involution melancholia . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia præcox . . . . .	3	2	5	1	2	3	—	—	—	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	—	1	1	1	1	2	—	3	3	1	1	2	—	3	3
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	1	—	1	—	—	—	1	—	1	—	—	—
20. With mental deficiency . . . . .	1	1	2	1	1	2	—	1	1	—	1	1	—	—	—
21. Undiagnosed psychoses . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	1	1	2
22. Without psychosis . . . . .	—	1	1	—	—	—	1	—	1	—	1	1	—	2	2
Total . . . . .	12	14	26	10	13	23	11	12	23	17	13	30	10	14	24

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	50-54 years			55-59 years			60-64 years			65-69 years			70 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
2. Senile . . . . .	-	-	-	-	-	-	1	2	3	2	6	8	3	18	21
3. With cerebral arteriosclerosis . . . . .	2	6	8	6	6	12	16	7	23	15	17	32	38	34	72
4. General paralysis . . . . .	3	1	4	2	1	3	2	-	2	2	-	2	1	-	1
5. With cerebral syphilis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
8. With other brain or nervous diseases . . . . .	2	-	2	1	1	2	-	-	-	-	1	1	-	1	1
9. Alcoholic . . . . .	3	3	6	2	1	3	-	-	-	1	-	1	1	-	1
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	2	2	-	-	-	-	2	2	-	1	1	-	-	-
13. Manic-depressive . . . . .	7	7	14	7	4	11	2	4	6	2	1	3	-	-	-
14. Involution melancholia . . . . .	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	2	7	9	-	1	1	-	-	-	-	1	1	1	-	1
17. Epileptic psychoses . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	1	1	2	1	-	1	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	1	1	-	-	-	1	-	1	-	-	-
Total . . . . .	23	29	52	19	16	35	22	15	37	23	27	50	46	54	100

TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

Psychoses	Total			Illiterate			Reads and writes <sup>1</sup>			Common School			High School			College			Unascertained																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
1. Traumatic . . . . .	2	—	2	—	—	—	—	3	—	3	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

<sup>1</sup>Includes those who did not complete fourth grade in school.



TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Urban		
	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	2	—	2
2. Senile . . . . .	6	26	32	6	26	32
3. With cerebral arteriosclerosis . . . . .	78	70	148	78	70	148
4. General paralysis . . . . .	17	5	22	17	5	22
5. With cerebral syphilis . . . . .	2	—	2	2	—	2
6. With Huntington's chorea . . . . .	—	1	1	—	1	1
7. With brain tumor . . . . .	1	1	2	1	1	2
8. With other brain or nervous diseases . . . . .	4	8	12	4	8	12
9. Alcoholic . . . . .	22	7	29	22	7	29
10. Due to drugs and other exogenous toxins . . . . .	3	2	5	3	2	5
11. With pellagra . . . . .	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	8	8	—	8	8
13. Manic-depressive . . . . .	42	56	98	42	56	98
14. Involution melancholia . . . . .	1	2	3	1	2	3
15. Dementia præcox . . . . .	5	5	10	5	5	10
16. Paranoia and paranoid conditions . . . . .	5	18	23	5	18	23
17. Epileptic psychoses . . . . .	1	3	4	1	3	4
18. Psychoneuroses and neuroses . . . . .	1	—	1	1	—	1
19. With psychopathic personality . . . . .	2	—	2	2	—	2
20. With mental deficiency . . . . .	7	4	11	7	4	11
21. Undiagnosed psychoses . . . . .	6	2	8	6	2	8
22. Without psychosis . . . . .	3	7	10	3	7	10
Total . . . . .	208	225	433	208	225	433

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Dependent			Marginal			Comfortable			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	—	—	—	2	—	2	—	—	—	—	—	—
2. Senile . . . . .	6	26	32	3	7	10	3	17	20	—	—	—	—	2	2
3. With cerebral arteriosclerosis . . . . .	78	70	148	19	15	34	53	50	103	4	1	5	2	4	6
4. General paralysis . . . . .	17	5	22	2	—	2	14	5	19	1	—	1	—	—	—
5. With cerebral syphilis . . . . .	2	—	2	—	—	—	1	—	1	1	—	1	—	—	—
6. With Huntington's chorea . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	1	1	2	1	—	1	—	—	—	—	—	—	—	1	1
8. With other brain or nervous diseases . . . . .	4	8	12	2	3	5	2	4	6	—	1	1	—	—	—
9. Alcoholic . . . . .	22	7	29	3	—	3	18	6	24	—	—	—	1	1	2
10. Due to drugs and other exogenous toxins . . . . .	3	2	5	—	—	—	3	2	5	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	8	8	—	1	1	—	6	6	—	1	1	—	—	—
13. Manic-depressive . . . . .	42	56	98	8	7	15	33	49	82	1	—	1	—	—	—
14. Involution melancholia . . . . .	1	2	3	—	—	—	1	2	3	—	—	—	—	—	—
15. Dementia præcox . . . . .	5	5	10	—	2	2	3	3	6	1	—	1	1	—	1
16. Paranoia and paranoid conditions . . . . .	5	18	23	—	1	1	5	17	22	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	1	3	4	—	2	2	1	1	2	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
19. With psychopathic personality . . . . .	2	—	2	—	—	—	1	—	1	1	—	1	—	—	—
20. With mental deficiency . . . . .	7	4	11	6	2	8	1	2	3	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	6	2	8	—	1	1	5	1	6	1	—	1	—	—	—
22. Without psychosis . . . . .	3	7	10	1	4	5	2	3	5	—	—	—	—	—	—
Total . . . . .	208	225	433	45	46	91	149	168	317	10	3	13	4	8	12

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . .	2	—	2	1	—	1	1	—	1	—	—	—	—	—	—
2. Senile . . .	6	26	32	2	16	18	—	2	2	3	1	4	1	7	8
3. With cerebral arterio-sclerosis . . .	78	70	148	15	40	55	25	10	35	27	3	30	11	17	28
4. General paralysis . . .	17	5	22	4	2	6	8	2	10	4	1	5	1	—	1
5. With cerebral syphilis . . .	2	—	2	2	—	2	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
7. With brain tumor . . .	1	1	2	—	—	—	1	—	1	—	—	—	—	1	1
8. With other brain or nervous diseases . . .	4	8	12	2	4	6	1	3	4	1	1	2	—	—	—
9. Alcoholic . . .	22	7	29	—	—	—	—	—	—	22	7	29	—	—	—
10. Due to drugs and other exogenous toxins . . .	3	2	5	—	1	1	—	1	1	3	—	3	—	—	—
11. With pellagra . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . .	—	8	8	—	6	6	—	2	2	—	—	—	—	—	—
13. Manic-depressive . . .	42	56	98	29	22	51	12	28	40	1	6	7	—	—	—
14. Involution melancholia . . .	1	2	3	—	2	2	—	—	—	1	—	1	—	—	—
15. Dementia praecox . . .	5	5	10	2	2	4	2	3	5	—	—	—	1	—	1
16. Paranoia and paranoid conditions . . .	5	18	23	3	5	8	—	12	12	2	1	3	—	—	—
17. Epileptic psychoses . . .	1	3	4	1	3	4	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . .	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . .	2	—	2	2	—	2	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . .	7	4	11	6	1	7	—	3	3	—	—	—	1	—	1
21. Undiagnosed psychoses . . .	6	2	8	3	2	5	2	—	2	1	—	1	—	—	—
22. Without psychosis . . .	3	7	10	1	2	3	2	3	5	—	2	2	—	—	—
Total . . .	208	225	433	74	109	183	54	69	123	65	22	87	15	25	40

TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total		Single		Married		Widowed		Separated		Divorced		Unascertained
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1. Traumatic . . . . .	2	2	3	9	2	2	1	14	1	1	1	1	M.
2. Senile . . . . .	6	26	6	32	1	5	15	15	1	1	1	1	F.
3. With cerebral arteriosclerosis . . . . .	78	148	17	33	41	15	38	56	1	1	1	1	T.
4. General paralysis . . . . .	17	5	2	2	10	4	3	3	1	1	1	1	-
5. With cerebral syphilis . . . . .	2	2	2	2	2	1	1	1	1	1	1	1	-
6. With Huntington's chorea . . . . .	1	1	1	1	1	1	1	1	1	1	1	1	-
7. With brain tumor . . . . .	1	2	1	1	1	1	1	1	1	1	1	1	-
8. With other brain or nervous diseases . . . . .	4	8	2	4	2	4	1	1	1	1	1	1	-
9. With other brain or nervous diseases . . . . .	22	7	5	5	11	5	3	4	2	1	1	1	-
10. Alcoholic . . . . .	3	2	1	3	1	1	1	1	1	1	1	1	-
11. Due to drugs and other exogenous toxins . . . . .	3	2	2	2	2	2	2	2	2	2	2	2	-
12. With pellagra . . . . .	8	8	2	2	2	2	2	2	2	2	2	2	-
13. With other somatic diseases . . . . .	42	56	17	41	24	23	16	7	1	1	1	1	-
14. Manic-depressive . . . . .	1	2	1	1	1	1	1	1	1	1	1	1	-
15. Involution melancholia . . . . .	5	5	5	3	4	9	1	1	1	1	1	1	-
16. Dementia praecox . . . . .	5	18	5	8	4	9	2	2	1	1	2	2	-
17. Paranoia and paranoid conditions . . . . .	1	3	1	3	1	3	1	1	1	1	1	1	-
18. Epileptic psychoses . . . . .	1	1	1	1	1	1	1	1	1	1	1	1	-
19. Psychoneuroses and neuroses . . . . .	2	2	1	1	1	1	1	1	1	1	1	1	-
20. With psychopathic personality . . . . .	7	4	7	3	1	1	1	1	1	1	1	1	-
21. With mental deficiency . . . . .	6	8	4	1	1	1	1	1	1	1	1	1	-
22. Undiagnosed psychoses . . . . .	3	7	2	4	1	1	1	1	1	1	1	1	-
23. Without psychosis . . . . .	10	10	6	6	2	4	1	1	2	2	2	2	-
Total . . . . .	208	225	71	141	101	74	27	65	5	11	3	5	1
		433				175		92		16		8	1

TABLE 14. *Psychoses of Readmissions*

PSYCHOSES	Males			Females			Total
1. Traumatic psychoses . . . . .	—	—	—	—	—	—	—
2. Senile psychoses . . . . .	—	—	—	3	—	—	3
3. Psychoses with cerebral arteriosclerosis . . . . .	1	—	—	6	—	—	7
4. General paralysis . . . . .	1	—	—	—	—	—	1
5. Psychoses with cerebral syphilis . . . . .	1	—	—	—	—	—	1
6. Psychoses with Huntington's chorea . . . . .	—	—	—	—	—	—	—
7. Psychoses with brain tumor . . . . .	—	—	—	—	—	—	—
8. Psychoses with other brain or nervous diseases . . . . .	—	—	—	1	—	—	1
9. Alcoholic psychoses . . . . .	4	—	—	—	—	—	4
10. Psychoses due to drugs and other exogenous toxins . . . . .	—	—	—	1	—	—	1
11. Psychoses with pellagra . . . . .	—	—	—	—	—	—	—
12. Psychoses with other somatic diseases . . . . .	—	—	—	—	—	—	—
13. Manic-depressive psychoses . . . . .	15	—	—	31	—	—	46
14. Involution melancholia . . . . .	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	4	—	—	4	—	—	8
16. Paranoia and paranoid conditions . . . . .	1	—	—	3	—	—	4
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—
19. Psychoses with psychopathic personality . . . . .	—	—	—	—	—	—	—
20. Psychoses with mental deficiency . . . . .	6	—	—	2	—	—	8
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—
Total . . . . .	33	—	—	51	—	—	84

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	1	5	6	—	1	1	—	2	2	1	2	3
3. With cerebral arteriosclerosis . . . . .	11	10	21	1	3	4	9	1	10	1	6	7
4. General paralysis . . . . .	3	1	4	—	—	—	2	1	3	1	—	1
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	1	2	3	—	—	—	1	1	2	—	1	1
9. Alcoholic . . . . .	6	1	7	2	—	2	3	1	4	1	—	1
10. Due to drugs and other exogenous toxins . . . . .	3	—	3	3	—	3	—	—	—	—	—	—
11. With pellagra . . . . .	1	—	1	1	—	1	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	3	4	—	2	2	1	1	2	—	—	—
13. Manic-depressive . . . . .	39	44	83	20	28	48	18	15	33	1	1	2
14. Involution melancholia . . . . .	—	2	2	—	—	—	—	2	2	—	—	—
15. Dementia praecox . . . . .	4	4	8	—	—	—	2	3	5	2	1	3
16. Paranoia and paranoid conditions . . . . .	4	5	9	—	—	—	4	3	7	—	2	2
17. Epileptic psychoses . . . . .	1	—	1	—	—	—	1	—	1	—	—	—
18. Psychoneuroses and neuroses . . . . .	2	1	3	1	1	2	1	—	1	—	—	—
19. With psychopathic personality . . . . .	1	4	5	—	1	1	1	3	4	—	—	—
20. With mental deficiency . . . . .	2	6	8	—	3	3	1	3	4	1	—	1
21. Undiagnosed psychoses . . . . .	1	1	2	—	—	—	—	1	1	1	—	1
22. Without psychosis . . . . .	3	4	7	—	—	—	—	—	—	—	—	—
Total . . . . .	84	93	177	28	39	67	44	37	81	9	13	22

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses

CAUSES OF DEATH	Total			Senile		With cerebral arterio-sclerosis		General paralysis		Alcoholic		Manic-depressive	
	M.	F.	T.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<i>Epidemic, Endemic and Infectious Diseases</i>													
Tuberculosis of the respiratory system . . . . .	10	18	28	1	2	3	3	2	5	—	—	1	7
Tuberculosis of other organs . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	1
<i>General Diseases not Included in Class I</i>													
Cancer and other malignant tumors . . . . .	6	12	18	1	4	5	1	5	6	—	—	—	—
Tumor (non-cancerous) . . . . .	1	—	—	—	—	—	—	—	—	4	4	—	—
Diabetes . . . . .	3	—	3	—	—	—	1	—	1	—	—	2	—
<i>Diseases of the Nervous System</i>													
Other diseases of spinal cord . . . . .	—	2	2	—	—	—	—	—	—	—	—	—	—
Cerebral hemorrhage, apoplexy . . . . .	2	7	9	—	2	2	2	2	4	—	—	—	—
General paralysis of the insane . . . . .	22	1	23	—	—	—	—	22	1	1	1	—	—
Epilepsy . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—
Other diseases of the nervous system . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Circulatory System</i>													
Endocarditis and myocarditis . . . . .	66	52	118	4	13	17	38	26	64	1	2	3	8
Angina pectoris . . . . .	4	2	6	—	1	1	2	—	2	5	1	6	2
Other diseases of the heart . . . . .	1	—	1	—	—	—	1	—	1	—	—	2	1
Arteriosclerosis . . . . .	2	12	14	—	5	5	1	6	7	—	—	—	—
<i>Diseases of the Respiratory System</i>													
Bronchopneumonia . . . . .	31	39	70	2	7	9	22	22	44	—	1	1	2
Lobar pneumonia . . . . .	2	8	10	—	—	—	—	1	1	—	—	1	1
Pleurisy . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Digestive System</i>													
Diseases of the pharynx and tonsils . . . . .	1	—	1	—	—	—	—	—	—	1	1	—	—
Ulcer of stomach and duodenum . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—
Appendicitis and typhlitis . . . . .	1	—	1	—	—	—	—	—	—	1	1	—	—
Hernia and intestinal obstruction . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—
Cirrhosis of liver . . . . .	2	—	2	—	—	—	1	—	1	—	—	—	—
Other diseases of liver . . . . .	1	—	1	—	—	—	—	—	—	—	—	1	—
Other diseases of digestive system (cancer and tuberculosis excepted)	1	—	1	—	—	—	—	—	—	—	—	—	—
<i>Non-Veneral Diseases of Genito-Urinary System and Annexa</i>													
Nephritis . . . . .	6	3	9	—	1	1	2	—	2	—	—	—	—
Other diseases of kidneys and annexa . . . . .	—	2	2	—	—	—	—	—	—	—	—	—	—
Diseases of bladder . . . . .	—	1	1	—	—	—	—	—	—	—	—	1	—
Other diseases not included in above groups . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>External Causes</i>													
Accidental traumatism . . . . .	3	3	6	—	1	1	1	2	3	1	—	—	—
Total . . . . .	171	163	334	8	36	44	75	66	141	14	3	17	28

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses — Concluded

CAUSES OF DEATH	Involution melancholia			Dementia praecox			Paranoia and paranoid conditions			Epileptic psychoses			Psycho- neuroses and neuroses			With mental deficiency			All other psychoses			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
<i>Epidemic, Endemic and Infectious Diseases</i>																						
Tuberculosis of the respiratory system . . . . .	—	1	1	5	3	8	—	—	—	—	—	—	—	—	—	—	2	2	—	—	1	1
Tuberculosis of other organs . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
<i>General Diseases not Included in Class I</i>																						
Cancer and other malignant tumors . . . . .	—	—	—	—	2	2	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	
Tumor (non-cancerous) . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	
Diabetes . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
<i>Diseases of the Nervous System</i>																						
Other diseases of spinal cord . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
Cerebral hemorrhage, apoplexy . . . . .	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	
General paralysis of the insane . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Epilepsy . . . . .	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	
Other diseases of the nervous system . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
<i>Diseases of the Circulatory System</i>																						
Endocarditis and myocarditis . . . . .	1	—	1	3	2	5	—	2	3	5	1	1	—	1	1	—	1	1	—	4	2	
Angina pectoris . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	
Other diseases of the heart . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Arteriosclerosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	
<i>Diseases of the Respiratory System</i>																						
Bronchopneumonia . . . . .	—	1	1	2	1	3	—	1	1	1	1	2	—	—	—	—	—	—	—	3	2	
Lobar pneumonia . . . . .	1	—	1	—	6	6	—	1	—	1	—	—	—	1	—	—	1	—	—	—	5	
Pleurisy . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
<i>Diseases of the Digestive System</i>																						
Diseases of the pharynx and tonsils . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ulcer of stomach and duodenum . . . . .	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Appendicitis and typhlitis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hernia and intestinal obstruction . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	
Cirrhosis of liver . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other diseases of liver . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other diseases of digestive system (cancer and tuberculosis excepted) . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	2	
<i>Non-venereal Diseases of Genito-Urinary System and Annexa</i>																						
Nephritis . . . . .	—	—	—	—	—	—	—	1	1	2	—	—	—	—	—	—	1	1	—	1	1	
Other diseases of kidneys and annexa . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Diseases of bladder . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other diseases not included in above groups . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	
<i>External Causes</i>																						
Accidental traumatism . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total . . . . .	3	2	5	11	14	25	4	8	12	—	6	3	9	10	9	19	—	—	—	—	—	

Includes group 22, "without psychosis".



TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses — Concluded.

PSYCHOSES	40-44 years		45-49 years		50-54 years		55-59 years		60-64 years		65-69 years		70 years and over	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Traumatic . . . . .													1	1
2. Senile . . . . .									1	1			6	33
3. With cerebral arteriosclerosis . . . . .									11	8	11	11	45	39
4. General paralysis . . . . .					1	3	4	7	4	4	2	2	2	84
5. With cerebral syphilis . . . . .	4		3	1	4			3						
6. With Huntington's chorea . . . . .														2
7. With brain tumor . . . . .														
8. With other brain or nervous diseases . . . . .													1	1
9. Alcoholic . . . . .					3		1	1					5	6
10. Due to drugs and other exogenous toxins . . . . .	1				1		1	2			6	1	1	1
11. With pellagra . . . . .														
12. With other somatic diseases . . . . .														
13. Manic-depressive . . . . .					2	1	3	2	4	1	1	1	1	1
14. Involution melancholia . . . . .					1	1	1	1	1	1	1	1	1	1
15. Dementia praecox . . . . .	1	1	3	1	1	1	2	1	1	1	2	2	3	4
16. Paranoia and paranoid conditions . . . . .	1	1	1	4			2	2			2	2	3	6
17. Epileptic psychoses . . . . .							1	1						
18. Psychoneuroses and neuroses . . . . .														
19. With psychopathic personality . . . . .														
20. With mental deficiency . . . . .					1		1	2	2	2				
21. Undiagnosed psychoses . . . . .														
22. Without psychosis . . . . .														
Total . . . . .	7	3	6	5	14	6	19	10	25	12	22	23	64	148



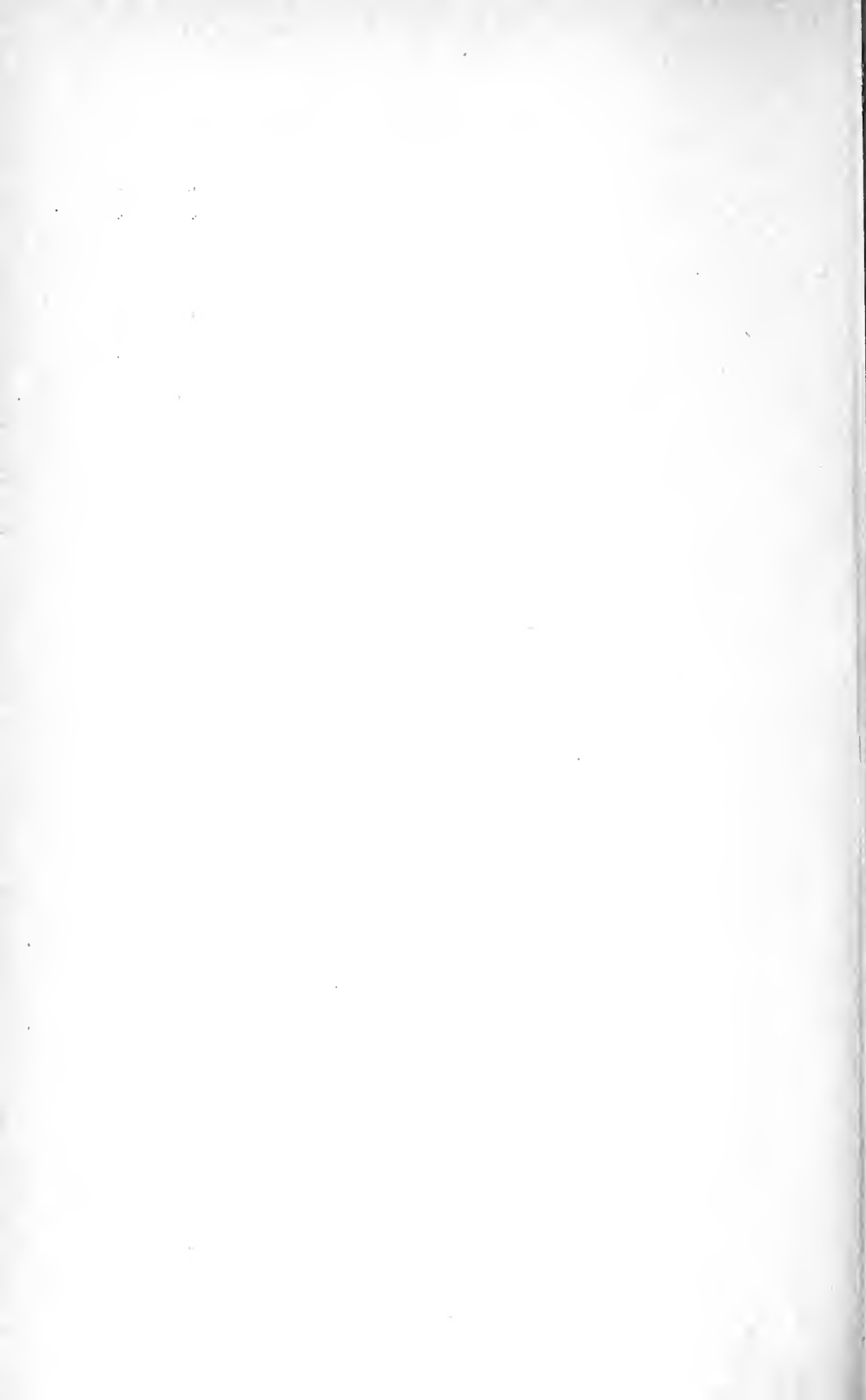
TABLE 18. Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses

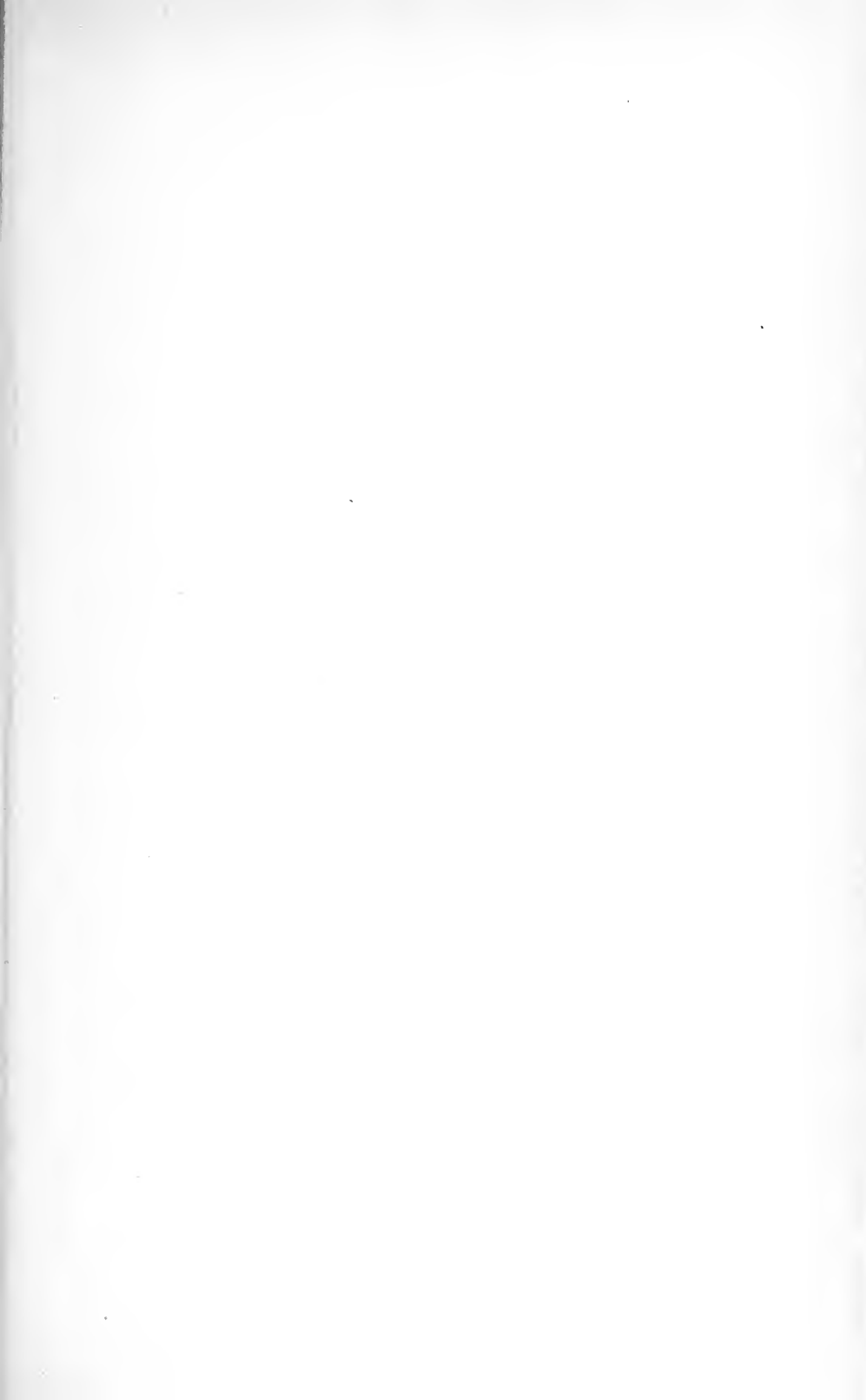
PSYCHOSES	Total			Less than 1 month		1-3 months		4-7 months		8-12 months		1-2 years		3-4 years	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	36	38	1	5	6	—	—	—	—	—	—	1	1	—
2. Senile . . . . .	8	44	52	1	33	34	—	—	—	—	—	—	3	5	8
3. With cerebral arteriosclerosis . . . . .	75	66	141	33	24	57	14	9	23	2	4	6	9	14	23
4. General paralysis . . . . .	24	4	28	4	—	4	6	—	6	1	1	2	1	—	—
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	1	1	—	1	2	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	5	5	10	3	3	6	—	1	1	—	—	—	1	—	—
8. With other brain or nervous diseases . . . . .	14	3	17	2	1	3	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	14	14	28	—	—	—	1	1	2	—	—	—	1	4	5
13. Manic-depressive . . . . .	3	2	5	—	—	—	1	2	3	—	—	—	1	1	—
14. Involution melancholia . . . . .	11	18	29	—	—	—	—	—	—	—	—	—	1	—	—
15. Dementia praecox . . . . .	4	3	7	—	—	—	—	—	—	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	2	1	3	—	—	—	—	—	—	1	1	2	—	—	—
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	171	163	334	45	35	80	24	19	43	16	12	28	18	27	45
										5	7	12	20	12	32



TABLE 19. *Family Care Department*

	Males	Females	Total
Remaining in Family Care September 30, 1931 . . . . .	—	15	15
On visit from Family Care September 30, 1931 . . . . .	—	—	—
Admitted during the year . . . . .	—	4	4
Whole number of cases within the year . . . . .	—	19	19
Dismissed within the year . . . . .	—	9	9
Returned to institution . . . . .	—	8	8
Discharged . . . . .	—	1	1
On visit . . . . .	—	—	—
Returned from visit . . . . .	—	—	—
Discharged from visit . . . . .	—	—	—
Remaining in Family Care September 30, 1932 . . . . .	—	10	10
On visit from Family Care September 30, 1932 . . . . .	—	—	—
Number of different persons within the year . . . . .	—	19	19
Number of different persons admitted . . . . .	—	4	4
Number of different persons discharged . . . . .	—	9	9
Average daily number in Family Care during year . . . . .	—	13.81	13.81
Supported by State . . . . .	—	10.41	10.41
Reimbursing . . . . .	—	.19	.19
Private . . . . .	—	.55	.55
Self-supporting . . . . .	—	2.66	2.66







*The Commonwealth of Massachusetts*

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

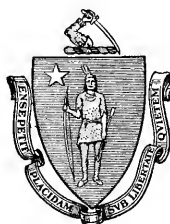
BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1933

THE NINETY-THIRD ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION ON ADMINISTRATION AND FINANCE  
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DEPARTMENT OF MENTAL DISEASES  
GARDNER STATE COLONY  
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## BOSTON STATE HOSPITAL

[Post Office Address: Dorchester Center, Mass.]

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### TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council:*

The Trustees of the Boston State Hospital have the honor to submit herewith their twenty-fifth annual report covering the year ended November 30, 1933.

The Trustees have held their usual monthly meetings, at each of which they have received and acted upon the detailed report of the Superintendent on the operations of the month. They have made the required visitations and have found the hospital continually in good condition and the officers and employees rendering efficient service. The appended reports of the Superintendent and Treasurer describe the operations of the year.



## PATIENTS IN THE CARE OF THE HOSPITAL

The average daily number of patients in the hospital during the past year was 2,160.44, an increase of 105.74 over the average daily number of the preceding year. The average daily number in family care was 11.02 as compared with 12.94 in the preceding year.

## CHANGE IN ADMINISTRATION

In January the Superintendent, Dr. James V. May, was appointed Commissioner of Mental Diseases as the successor of the late Dr. George M. Kline. The Assistant Superintendent, Dr. Herbert E. Herrin, was appointed Acting Superintendent. There being no Assistant Superintendent, this appointment entailed on Dr. Herrin a heavy burden, but he has discharged all these duties with full satisfaction to the Trustees, who desire to record their grateful appreciation of his cooperation.

## FINANCIAL STATEMENT

The appropriation available for maintenance during the past year was \$755,918.51 and the expenditures amounted to \$726,570.10. The average weekly cost per patient was \$6.43, as compared with \$6.92 in the preceding year.

The estimate for maintenance the coming year, based on a population of 2,290, is as follows:

Personal services . . . . .	\$436,374.00
Religious instruction . . . . .	1,872.00
Travel, transportation, etc. . . . .	7,251.00
Food . . . . .	200,709.00
Clothing and materials . . . . .	26,408.00
Heat and other plant operation . . . . .	80,092.00
Medical and general care . . . . .	22,430.00
Furnishings and household supplies . . . . .	39,113.00
Farm . . . . .	7,492.00
Garage and grounds . . . . .	15,230.00
Repairs, ordinary . . . . .	15,600.00
Repairs and renewals . . . . .	8,970.00
Total . . . . .	<hr/> \$861,541.00

## NEW CONSTRUCTION

The greenhouse which was authorized in 1930 is nearly completed. Construction has been delayed, as our force has been employed on other more pressing work. The Reception Building authorized in 1931 was completed in February and opened for the reception of patients in June. It will hereafter be known as the Psychiatric Clinic. With this admirably arranged and equipped building, the hospital is in a position to render the best service to the patients who show promise of recovery or improvement and will undoubtedly diminish the average period of hospital care.

The General Court in 1933 established the Emergency Public Works Commission and authorized it to select suitable State projects to be financed by loans and grants from the Federal Public Works Administration and to make the necessary arrangements with the Federal authorities. This Commission, with the approval of the Governor, has selected the following projects for the Boston State Hospital. With the exception of the equipment projects, they have all been approved by the Federal Advisory Board and by the Public Works Administration. Several of them have been advertised for bids, but no further progress can be made until an instalment of the money is received.

Structural changes in the boiler house, including the removal of the present boilers, purchase and installation of 4 new boilers, purchase and installation of 2 new generators, necessary electrical equipment and rewiring of buildings in the East Group . . . . .	\$422,000.00
Construction of a carpenter shop . . . . .	18,000.00
Construction of a building for 200 male employees . . . . .	334,000.00
Equipment for the preceding . . . . .	24,000.00
Construction of a building for offices, quarters for officers and 86 female employees . . . . .	177,000.00

Equipment for the preceding . . . . .	18,000.00
Construction of 3 officers' cottages . . . . .	45,000.00
Construction and equipment of a pavilion for 79 tuberculous patients . . . . .	164,000.00
Construction and equipment of a laboratory and mortuary building . . . . .	55,000.00

#### FURTHER NEEDS OF THE HOSPITAL

While it is not expected that any special appropriations for improvements will be made in 1934, the Trustees desire to record the remaining needs of the institution.

Assembly Hall . . . . .	\$125,000.00
Alterations in the present West Office Building . . . . .	15,000.00
Industrial building . . . . .	15,000.00
Root cellar . . . . .	8,000.00
Garage for 25 cars . . . . .	20,000.00
Road, grading and sidewalks . . . . .	152,000.00
Placing electric wires underground . . . . .	43,250.00
New paint shop . . . . .	15,000.00
Replacing stucco buildings:	
West C Building . . . . .	190,000.00
West D Building . . . . .	190,000.00
East A Building . . . . .	135,000.00
East F Building . . . . .	115,000.00
Laundry equipment . . . . .	10,125.00
Tunnels to connect West C and D Buildings with Congregate Dining Room . . . . .	20,000.00

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#### REPORT OF THE ACTING SUPERINTENDENT

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1933, and the fiscal year ending November 30, 1933. Founded by the City of Boston in 1839, this marks the completion of its ninety-fourth year as a hospital for mental diseases, and the twenty-fifth year of its history as a State institution.

#### MOVEMENT OF POPULATION

The census of the hospital on September 30, 1932, was as follows: in the wards, men, 844; women, 1,219; total, 2,063; at home on visit, men, 93; women, 112; total, 205; boarding out, men, none, women, 10; and out on escape, women, none, men, 4; making a total of 2,282, 941 men and 1,341 women, in the custody of the hospital.

Three hundred and seventy-five men and 402 women, a total of 777, were received during the year. This included the following: first admissions as insane, men, 224, women, 246, total 470; readmissions as insane, men, 26, women, 52, total, 78; first admissions, temporary care, men, 64, women, 40, total, 104; readmissions, temporary care, men, 41, women, 40, total, 81; and transferred from other institutions, men, 20, women, 24, total, 44. Three hundred and thirty-seven, including 173 men and 164 women, were discharged during the year. Eighteen men and four women, a total of 22, were transferred to other institutions. One hundred and forty-four men and 128 women, a total of 272, died during the year.

The census on September 30, 1933, was as follows: in the wards, men, 880, women, 1,301, total, 2,181; at home on visit, men, 100, women, 135, total, 235; boarding out, men, none, women, 11; and out on escape, women, none, men, 1; making a total of 2,428, 981 men and 1,447 women, in the custody of the hospital.

The total number of cases treated during the year was 3,059, 1,316 men and 1,743 women.

The average daily number of patients for the statistical year was as follows: men, 959.25, women, 1,396.99, total, 2,356.24. The average daily number in the wards was: men, 872.05, women, 1,268.90, total, 2,140.95, or 90.86% of the whole number. The average daily number at home on visit was, men, 84.50, women, 117.29, total, 201.79, or 8.56%. The average daily number boarding out was, men, none, women, 10.73, or .46%. The average daily number out on escape was, men, 2.70, women, .07, total, 2.77, or .12%. The average daily number of committed cases was, men, 851.57, women, 1,260.13, total, 2,111.70, or 98.63% of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was, men, none, women, .014, or .0006%. The average daily number of cases under complaint or indictment was, men, 13.36, women, 2.00, total, 15.36, or .717%. The average daily number of temporary care cases, including the emergency cases and those under complaint or indictment, was, men, 20.48, women, 8.77, total, 29.25, or 1.37%. The average daily number of epileptics was, men, 14.71, women, 18.26, total, 32.97, or 1.54%. The average daily number of tubercular patients was, men, 15.87, women, 40.98, total, 56.85, or 2.66%. The average daily number of reimbursing patients was, men, 165, women, 77, total, 242, or 11.30%. The average daily number of cases supported by the State was, men, 707.05, women, 1,191.90, total, 1,898.95, or 88.70%. The average daily number of ex-service cases on the books was, men, 34.24, women, 2.00, total, 36.24, or 1.54% of the total number on the books. The average daily number of ex-service cases in the hospital was, men, 27.22, women, 2.00, total, 29.22, or 1.36% of the total number of patients in the wards.

The recovery rate, based on the number of all first admissions (574), was 12.54%; based on the total number cared for during the year (3,059), 2.36%; based on the average daily number in the wards (2,140.95), 3.36%; and based on the total number of admissions for the year (777), 9.27%.

The death rate, based on the total number cared for during the year, was 8.89%; and based on the average daily number in the wards, 12.70%. Inasmuch as over 35% of the population is of the infirm type, and about 10% bed cases, the death rate at this institution is unusually large compared with similar hospitals. There are committed to the Boston State Hospital many acutely ill, senile, and infirm cases from the city that cannot readily be transported to a greater distance. It is obvious, for the same reason, that too much significance should not be attached to the recovery rate. In this connection, attention should be called to the fact that the first admissions for this year represent an average age on admission of 53.93 years.

Of the first admissions as insane, 216, or 45.96%, were foreign born, and 393, or 83.62%, were of foreign parentage on one or both sides. Seventy-five, or 15.96%, were aliens. Citizenship was unascertained in 62, or 13.19%. Of the 5,486 consecutive first admissions for the thirteen-year period ending September 30, 1933, 2,657, or 48.43%, were foreign born; 4,396, or 80.13%, were of foreign parentage on one or both sides; 985, or 17.95%, were aliens; and citizenship was unascertained in 581, or 10.60%.

The average age on admission was 53.93 years; 208, or 44.26%, were 60 years of age or over, and 129, or 27.45%, were 70 years of age or over. For the thirteen-year period ending September 30, 1933, the average age on admission was 52.52 years; 2,198, or 40.07%, were 60 years of age or over; and 1,213, or 22.11%, were seventy years of age or over.

The first admissions for the year, classified according to legal status, under the General Laws, were as follows:

	<i>Males</i>	<i>Females</i>	<i>Total</i>
Committed cases (Sec. 51, Chap. 123) . . . . .	125	124	249
Committed case (Sec. R. C. 77, Chap. 123) . . . . .	1	—	1
Temporary care cases (Sec. 79, Chap. 123) . . . . .	86	115	201
Observation cases (Sec. Obs. 77, Chap. 123) . . . . .	12	7	19
<b>Total . . . . .</b>	<b>224</b>	<b>246</b>	<b>470</b>

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (Sec.

51, Chap. 123, General Laws), 52.98%; one case committed from observation (Sec. R. C. 77, Chap. 123, General Laws), .21%; observation cases (Sec. 77, Obs., Chap. 123, General Laws), 4.04%; and temporary care cases (Sec. 79, Chap. 123, General Laws), 42.77%. For the thirteen-year period ending September 30, 1933, the distribution of the 5,486 first admissions classified according to legal status was as follows: committed cases (Sec. 51, Chap. 123, General Laws), 3,739, or 68.15%; cases committed from observation (Sec. R. C. 77, Chap. 123, General Laws, and Chap. 19, Acts of 1924), 6, or .11%; voluntary cases (Sec. 86, Chap. 123, General Laws), 3, or .05%; emergency cases, (Sec. 78, Chap. 123, General Laws), 54, or .98%; observation cases (Sec. Obs. 77, Chap. 123, General Laws), 258, or 4.70%; temporary care cases (Sec. 79, Chap. 123, General Laws), 1,404, or 25.60%; one case pending examination and hearing (Sec. 55, Chap. 123, General Laws); and one case acquitted of murder by reason of insanity (Sec. 101, Chap. 123, General Laws). The cases (19) held under complaint or indictment (Sec. 100, Chap. 123, General Laws) constitute .35%, but this is misleading, inasmuch as these cases are included only for the first three years of the above period, being counted as temporary care cases since that time. There was also included above one Boston Police case (Chap. 307, Acts of 1910). No voluntary cases have been admitted since 1921.

Of the 470 first admissions for the year, the cause was unascertained or no cause given in 108, or 22.98%. In the 362 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 38, or 10.49%; arteriosclerosis, 154, or 42.54%; syphilis, 17, or 4.70%; alcoholism, 30, or 8.30%; involutional changes, 16, or 4.42%; and traumatism, 3, or .83%. There was a family history of mental diseases in 79, or 16.81%, mental defects in 11, or 2.34%; and nervous diseases in 20, or 4.26%, of the first admissions. Of the 5,486 first admissions to the hospital during the thirteen-year period ending September 30, 1933, the cause was unascertained or no cause given in 1,523, or 27.75%, of the cases. In the 3,963 cases where a definite cause was assigned, the etiological factors are classified as follows: senility, 723, or 18.25%; arteriosclerosis, 1,172, or 29.57%; syphilis, 426, or 10.75%; alcoholism, 431, or 10.87%; involutional changes, 237, or 6.00%; and traumatism, 56, or 1.41%. There was a family history of mental diseases in 907, or 14.71%, mental defects in 103, or 1.88%, and nervous diseases in 214, or 3.90%, of the first admissions during this period.

The forms of mental disease shown by the 470 first admissions for the year, briefly summarized, were as follows: senile psychoses, 37, or 7.87%; psychoses with cerebral arteriosclerosis, 153, or 32.55%; general paralysis, 18, 3.83%; psychoses with other brain or nervous diseases, 8, or 1.70%; alcoholic psychoses, 28, or 5.95%; psychoses with other somatic diseases, 13, or 2.77%; manic-depressive psychoses, 113, or 24.04%; involution melancholia, 6, or 1.28%; dementia praecox, 15, or 3.19%; paranoia and paranoid conditions, 33, or 7.02%; epileptic psychoses, 4, or .85%; psychoneuroses and neuroses, 6, or 1.28%; psychoses with mental deficiency, 17, or 3.62%; and all other psychoses one per cent or less. Three, or .64%, were without psychosis. The psychoses of all first admissions are shown in Table 6, on page 31.

The forms of mental disease shown by the 5,486 first admissions for the thirteen-year period ending September 30, 1933, are summarized as follows: traumatic psychoses, 27, or .49%; senile psychoses, 745, or 13.58%; psychoses with cerebral arteriosclerosis, 1,318, or 24.02%; general paralysis, 397, or 7.24%; psychoses with cerebral syphilis, 27, or .49%; psychoses with Huntington's chorea, 5, or .09%; psychoses with brain tumor, 15, or .27%; psychoses with other brain or nervous diseases, 97, or 1.77%; alcoholic psychoses, 356, or 6.49%; psychoses due to drugs and other exogenous toxins, 26, or .47%; psychoses with pellagra, 3, or .05%; psychoses with other somatic diseases, 160, or 2.92%; manic-depressive psychoses, 872, or 15.89%; involution melancholia, 111, or 2.02%; dementia praecox, 485, or 8.84%; paranoia and paranoid conditions, 332, or 6.05%; epileptic psychoses, 48, or .87%; psychoneuroses and neuroses, 42, or .76%; psychoses with psychopathic personality, 34, or .62%; psychoses with mental deficiency, 161, or 2.94%; and undiagnosed psychoses, 173, or 3.15%. Fifty-two, or .95%, were without psychosis. Attention should again be called to the fact that the

psychoses represented by our first admissions are not consistent with the admission rate shown by other hospitals. This is due to the fact that the acutely ill, the senile, and the infirm cases from the City of Boston cannot be removed to distant institutions, and for that reason are brought here. It does not mean, of course, that the admission rates for manic-depressive psychoses and for dementia praecox are lower in Boston. As a matter of fact, if the senile and arteriosclerotic cases are disregarded, it will be readily apparent that this is not the case.

The forms of mental disease shown by the readmissions for the year, briefly summarized, were as follows: senile psychoses, 2, or 2.56%; psychoses with cerebral arteriosclerosis, 4, or 5.13%; general paralysis, 1, or 1.28%; psychosis with other brain or nervous disease, 1, or 1.28%; alcoholic psychoses, 6, or 7.70%; psychosis with other somatic disease, 1, or 1.28%; manic-depressive psychoses, 42, or 53.85%; dementia praecox, 8, or 10.26%; paranoia and paranoid conditions, 6, or 7.70%; epileptic psychosis, 1, or 1.28%; psychoneurosis or neurosis, 1, or 1.28%; psychosis with psychopathic personality, 1, or 1.28%; psychoses with mental deficiency, 3, or 3.84%; and undiagnosed psychosis, 1, or 1.28%.

Of the 78 readmissions, 41, or 52.56%, were committed under the provisions of section 51, chapter 123, of the General Laws; 36, or 46.16%, were temporary care cases (section 79, chapter 123, General Laws); and 1, or 1.28%, was an observation case (section Obs., 77, chapter 123, General Laws). No emergency cases (section 78, chapter 123, General Laws), no voluntary cases (section 86, chapter 123, General Laws), and no cases pending examination and hearing (section 55, chapter 123, General Laws) were included in the readmissions for the year.

The total number of insane cases discharged during the year was 183. Of this number, 56, or 30.60%, were discharged as recovered; 104, or 56.83%, as improved; 21, or 11.47%, as unimproved; and 2, or 1.10%, as without psychosis. Of the 56 recovered cases, 2, or 3.57%, were cases of senile psychosis; 7, or 12.50%, alcoholic psychosis; 2, or 3.57%, psychosis due to drugs or other exogenous toxins, 1, or 1.79% psychosis with other somatic diseases; 36, or 64.29%, manic-depressive psychosis; 1, or 1.79%, paranoia or paranoid condition; 2, or 3.57%, psychosis with psychopathic personality; and 5, or 8.92%, psychosis with mental deficiency. Of the 104 cases discharged as improved, 2, or 1.92%, were cases of traumatic psychosis; 2, or 1.92%, senile psychosis; 18, or 17.30%, psychosis with cerebral arteriosclerosis; 2, or 1.92%, general paralysis; 1, or .97%, psychosis with cerebral syphilis; 4, or 3.84%, psychosis with other brain or nervous disease; 7, or 6.73%, alcoholic psychosis; 1, or .97%, psychosis due to drugs or other exogenous toxins; 1, or .97% psychosis with other somatic disease; 35, or 33.65%, manic-depressive psychosis; 2, or 1.92%, involution melancholia; 12, or 11.54%, dementia praecox; 10, or 9.61%, paranoia and paranoid conditions; 2, or 1.92%, epileptic psychosis; 1, or .97%, psychoneurosis or neurosis; 1, or .97%, psychosis with psychopathic personality; and 3, or 2.88%, psychosis with mental deficiency. Of the 21 cases discharged as unimproved, 3, or 14.28%, were cases of senile psychosis; 4, or 19.04%, psychosis with cerebral arteriosclerosis; 2, or 9.53%, alcoholic psychosis; 4, or 19.04%, manic-depressive psychosis; 1, or 4.77%, involution melancholia; 4, or 19.04%, dementia praecox; 2, or 9.53%, paranoia or paranoid condition; and 1, or 4.77%, psychoneurosis or neurosis.

The following is a study of the entire hospital residence in all hospitals for mental diseases, exclusive of all time out on visit, of the cases discharged during the year: 12, or 6.56%, were discharged after a residence of less than one month; 59, or 32.24%, after a residence of from one to six months; 40, or 21.86%, from six months to one year; 33, or 18.03%, from one to two years; 9, or 4.92%, two to three years; 10, or 5.46%, three to four years; 5, or 2.73%, four to five years; 7, or 3.83%, five to ten years; and 8, or 4.37%, ten years or over. The average duration of hospital residence was one year, seven months, and nineteen days.

Of the 241 deaths occurring during the year, 168, or 69.71%, represented cases dying at the age of sixty or over. In 114, or 47.30%, death occurred at the age of seventy or over. Of the 3,480 deaths occurring at the hospital during the thirteen-year period ending September 30, 1933, 2,382, or 68.45%, were cases dying at the age of sixty or over; and in 1,348, or 38.74%, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: endocarditis and myocarditis, 87, or 36.10%; bronchopneumonia, 57, or 23.65%; general paralysis of the insane, 11, or 4.56%; tuberculosis of the lungs, 15, or 6.22%; arteriosclerosis, 11, or 4.56%; cancer, 10, or 4.15%; nephritis, 4, or 1.66%; lobar pneumonia, 4, or 1.66%; and cerebral hemorrhage, 12, or 4.98%.

The psychoses represented by deaths occurring in the hospital during the year were as follows; senile psychoses, 37, or 15.35%; psychoses with cerebral arteriosclerosis, 106, or 43.98%; general paralysis, 23, or 9.54%; psychoses with brain tumor, 3, or 1.24%; psychoses with other brain or nervous diseases, 7, or 2.90%; alcoholic psychoses, 6, or 2.49%; psychoses with other somatic diseases, 6, or 2.49%; manic-depressive psychoses, 19, or 7.88%; dementia praecox, 19, or 7.88%; paranoia and paranoid conditions, 6, or 2.49%; and each of the following less than one%: psychoses with Huntington's chorea, involution melancholia, epileptic psychoses, psychoneuroses and neuroses, psychoses with mental deficiency, and undiagnosed psychosis. Of the 37 cases of senile psychosis dying in the hospital during the year, 14 or 37.83%, were due to bronchopneumonia, and 14, or 37.83%, to endocarditis and myocarditis. Of the 106 cases of psychosis with cerebral arteriosclerosis, death was due in 44, or 41.51%, to endocarditis and myocarditis; in 27, or 25.47%, to bronchopneumonia; in 11, or 10.38%, to cerebral hemorrhage; and in 7, or 6.60%, death was attributed directly to arteriosclerosis. Of the 23 cases of general paralysis, death is reported as due to general paralysis of the insane in 11, or 47.83%, and to bronchopneumonia in 5, or 21.74%. Of the 19 cases of dementia praecox, death was due to bronchopneumonia in 1, or 5.26%; to lobar pneumonia in 1, or 5.26%; to cancer in 1, or 5.26%; to endocarditis and myocarditis in 6, or 31.58%; and to tuberculosis of the lungs in 9, or 47.37%.

Of the 241 patients dying in the hospital during the year, the total duration of hospital residence was as follows: less than one year, 140, or 58.09%; one to three years, 29, or 12.03%; three to five years, 15, or 6.23%; five to seven years, 16, or 6.64%; seven to nine years, 4, or 1.66%; nine to eleven years, 6, or 2.49%; eleven to fifteen years, 9, or 3.73%; fifteen to twenty years, 9, or 3.73%; and twenty years and over, 13, or 5.40%. The psychoses showing the longest hospital residence were as follows: psychosis with other brain or nervous disease, one over 21 years; alcoholic psychosis, one over 17, one over 21, and one over 27 years; manic-depressive psychosis, one over 25 years; dementia praecox, one over 16 and one over 18 years; paranoia and paranoid condition, one over 16 years; three over seventeen, one over 18, two over 20, one over 21, one over 25, and one over 29 years; epileptic psychosis, one over 27 years; and psychosis with mental deficiency, one over 20 years. The following shows the duration of hospital residence of all cases dying in the hospital during the thirteen-year period ending September 30, 1933; less than one year, 1,774, or 50.98%; one to three years, 675, or 19.40%; three to five years, 295, or 8.48%; five to seven years, 196, or 5.63%; seven to nine years, 116, or 3.33%; nine to eleven years, 77, or 2.21%; eleven to fifteen years, 148, or 4.25%; fifteen to twenty years, 88, or 2.53%; and twenty years and over, 109, or 3.13%. In this total of 3,480 deaths, the duration of hospital residence was unascertained in 2, or .056%.

Attention is called to Table No. 19 of the Statistical Tables, on page 48, which shows, for the first time, the psychoses represented by the patients in the hospital on the last day of the year, September 30, 1933. These are as follows: traumatic psychoses, 8, or .37%; senile psychoses, 104, or 4.76%; psychoses with cerebral arteriosclerosis, 175, or 8.03%; general paralysis, 54, or 2.48%; psychoses with cerebral syphilis, 11, or .50%; psychosis with Huntington's chorea, 1, or .05%; psychosis with brain tumor, none; psychoses with other brain or nervous diseases, 24, or 1.10%; alcoholic psychoses, 153, or 7.02%; psychoses due to drugs and other exogenous toxins, 2, or .09%; psychosis with pellagra, none; psychoses with other somatic diseases, 17, or .78%; manic-depressive psychoses, 440, or 20.17%; involution melancholia, 40, or 1.83%; dementia praecox, 736, or 33.75%; paranoia and paranoid condition, 193, or 8.85%; epileptic psychoses, 28, or 1.28%; psychoneuroses and neuroses, 13, or .60%; psychoses with psychopathic personality, 15, or .69%; psychoses with mental deficiency, 144, or 6.60%; undiagnosed psychoses, 9, or .41%; and without psychosis, 14, or .64%.

A study has been continued of the 6,368 consecutive admissions to this hospital for the ten-year period beginning October 1, 1920. All deaths and transfers in this group having been excluded, as they represent an uncompleted hospital residence, the total number of cases for analysis on October 1, 1933, at the expiration of three years after the last admission, is 3,594. Of this number, 7.12% were discharged after a residence in the hospital of seven days or less; 20.12%, after thirty days or less; 45.63%, after six months or less; and 57.48%, after one year or less. It is interesting to note that of the above 3,594 consecutive admissions 17.61% remained in the hospital after a residence of five years or more, and 6.20%, after a residence of more than ten years. The recovery rate shown in this group of cases is 18.78%. Of the cases discharged as recovered, 76.29% had a hospital residence here of one year or less.

An analysis of 4,743 consecutive admissions to this hospital for the thirteen-year period beginning October 1, 1920, and ending September 30, 1933, excluding deaths, transfers, and cases discharged as without psychosis, shows a recovery rate of 16.88%.

The following general information relating to the ward service should be of interest:

	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Per-centage</i>
Average daily population. . . . .	872.05	1,268.90	2,140.95	100.00
In bed . . . . .	67.32	154.60	221.92	10.37
Congregate dining room . . . . .	725.07	719.72	1,444.79	67.81
Eating in wards. . . . .	146.98	549.18	696.16	32.19
Fed by nurses . . . . .	11.28	91.52	102.80	4.80
Idle . . . . .	359.55	682.96	1,042.51	48.73
Employed . . . . .	512.50	585.94	1,098.44	51.27
Parole of grounds . . . . .	112.84	12.22	125.06	5.84
Out for exercise . . . . .	798.77	727.33	1,516.10	74.08
Noisy . . . . .	48.13	263.98	312.11	14.58
Violent . . . . .	.14	52.11	52.25	2.44
Destructive . . . . .	17.37	169.53	186.90	8.76
Soiled or wet . . . . .	86.66	222.21	308.87	14.42
Taking medicine . . . . .	49.23	52.32	101.55	4.78
Epileptic . . . . .	14.71	18.26	32.97	1.54
Tuberculous . . . . .	15.87	40.98	56.85	2.66
Infirm . . . . .	369.96	419.59	789.55	36.87
In restraint . . . . .	3.65	14.31	17.96	.83
In seclusion . . . . .	7.06	16.42	23.48	1.09

The percentages given above represent the average daily number for the entire year, that is: the average daily number of patients in bed was 221.92, or 10.37% of the average daily number of patients in the wards of the hospital for the year, and the average daily number out for exercise was 1,516.10, or 74.08% of the same average daily population. It will be noted that 36.87% of the population for the year was of the infirmary type. This fact, which is attributable to a great extent to the location of the institution near the City of Boston, should be taken into account when considering the number of patients out for exercise and the percentage who are employed in useful occupations.

#### GENERAL HEALTH OF THE HOSPITAL

Throughout the past year, the general health of the patients and employees of the hospital has been good. Although there was the usual seasonal increase, during the winter months, of mild upper respiratory tract infections among a considerable number of the patients, this increase did not at any time assume the proportion of an epidemic. One patient suffering from pellagra was admitted from a general hospital. The history showed that this patient had been drinking excessively for a long period of time and had taken practically no food for several weeks previous to admission. While at the hospital, the condition rapidly improved, and at the end of a months' residence the patient was discharged, free from all evidence of the disease.

There were three cases of scarlet fever during the year. These all occurred among the nurses and apparently had no relation to each other. It was thought probable that in each instance the disease was contracted outside of the hospital. The first developed in a nurse while at home on her day off duty. She remained in her home, where she was treated by her family physician. The remaining two were transferred to the South Department of the Boston City Hospital. All three ran uncomplicated courses and eventually returned to duty in the hospital.

Two deaths occurred among the employees. On March 11, Mrs. Ella Driscoll, a cook at the East Group staff kitchen, while at her work was suddenly seized with an apoplectic stroke, from which she died a few hours later. On June 5, John J. Crowe, a supervisor at the West Group, died suddenly from angina pectoris. He had been subject to attacks of this disease at irregular intervals for several years, and at times had been under the care of a physician. Mr. Crowe had been in the employ of the hospital for over seventeen years, and upon his death the hospital lost an unusually trusted and valued employee.

During the year, the usual number of accidents occurred among the patients, resulting, for the most part, in minor injuries. In a number of aged and feeble patients, bones were fractured as results of accidental falls. These occurrences were all reported in the usual manner to the Trustees and to the Department of Mental Diseases.

The employees of the hospital experienced about the same number of accidents as in former years. These were all of a minor nature, and in each instance the injury was reported to the Department of Industrial Accidents.

No suicide or serious attempt at suicide occurred during the year.

Nine hundred and two Wassermann examinations were made for us by the State Department of Public Health — 828 blood serum and 74 cerebrospinal fluid. There have been 829 treatments for neurosyphilis given during the year, to 39 different patients, making an average number of 21.26 treatments per patient. A full account of this work is given elsewhere in this report.

#### EMPLOYEES

On September 30, 1932, there were 452 persons employed in the hospital. For purposes of comparison, the report on employees is divided into two parts, *i.e.* the first eight months prior to the opening of the Psychopathic clinic which necessitated an increase in the number of employees, and the last four months, including the Psychiatric Clinic. During the first eight months of the year, 79 were appointed, 65 resigned, and 6 were discharged. Five hundred and thirty-one persons occupied 477.5 positions, — a rotation of 1.11. The average daily number of all employees during this period was 468.49, with 1.90% of vacancies, and the average daily number in the ward service was 259.40, with 2.48% of vacancies. The ratio of ward employees to patients was one to 8.17, and of all employees, one to 4.53. During the last four months, 162 were appointed, 87 resigned, and 8 were discharged. Six hundred and twenty-three persons occupied 542 positions, — a rotation of 1.15. The average daily number of all employees during this period was 516.85, with 4.64% of vacancies, and the average daily number in the ward service was 295.59, with 6.46% of vacancies. The ratio of ward employees to patients was one to 7.38, and of all employees, one to 4.22. The applicants for positions during the year have continued to be persons with unusually high standards of qualifications, both educational and personal.

The total number of visitors to patients during the year was 75,000, the maximum number on one day being 1,078. It is quite apparent that this large number of visitors require considerable attention from the attendants and nurses.

#### MEDICAL SERVICE

The appointment of Dr. Herbert E. Herrin, formerly Assistant Superintendent, as Acting Superintendent of the hospital on January 16, 1933, is noted elsewhere in this report. On December 8, 1932, Dr. Frederick LeDrew was promoted to the position of senior physician, having served as an assistant physician since August 5, 1929, the latter part of that time in charge of the male infirmary service. On June 15, 1933, Dr. Winthrop B. Osgood, appointed assistant physician on December 26, 1929, was promoted to the position of senior physician. Upon the opening



of the Psychiatric Clinic, additions were made to the authorized quota of physicians. On June 15, 1933, Dr. Purcell G. Schube was appointed senior physician. Dr. Schube was born in Charleston, West Virginia. He received the degree of B.S. from the University of Cincinnati in 1926, and his medical degree from the Cincinnati Medical College in 1929. Since that time he has served a term as interne at the Cincinnati General Hospital, and for two years had a fellowship in neuropsychiatry under the Commonwealth Fund. At the expiration of this time, which he spent at the Psychopathic Hospital in Denver, Colo., he became a member of the staff at the Hartford Retreat, in Connecticut. Dr. Schube is married but has no children. One June 15, 1933, Dr. Ella I. Duff was appointed senior physician. She was born in New Brunswick, Canada, but is a citizen of this country. Her preliminary education was obtained at the Worcester Classical High School, and she received the degree of A.B. from McGill University in Montreal in 1918, and M.D. from the Woman's Medical College in Philadelphia in 1923. After a year's internship at the Worcester Memorial Hospital, she was assistant physician at the Boston Psychopathic Hospital for three years, serving as chief of the women's service for the last six months. She then served for fifteen months as psychiatrist on the receiving ward at the Norwich State Hospital in Connecticut, returning to the Boston Psychopathic Hospital for research work until June 1, 1932, after which she did some work at the Judge Baker Foundation. To fill the vacancy caused by the promotion of Dr. Osgood, Dr. Carl E. Trapp was appointed assistant physician on June 15, 1933. Dr. Trapp was born in Schenectady, N. Y., and received his preliminary education at the Los Angeles, Calif., High School and the University of Southern California. He graduated from the Boston University Medical School in 1932, serving, while there, as night admitting officer at the Massachusetts Memorial Hospitals. He served for one year as rotating interne at the Morningside Hospital, Montclair, N. J., and comes to us well recommended.

One addition was made to the list of consultants during the year. In December, Dr. Loretta Joy Cummins of Boston was appointed consulting dermatologist, and has since served in that capacity. As in previous years, frequent visits have been made to patients and the necessary major operations performed by Dr. Irving J. Walker, Dr. Charles C. Lund, and Dr. Grace E. Rochford. Dr. William E. Preble and Dr. Albert Evans, internists, have responded to calls when their services were needed, and several patients have been seen by Dr. Abraham Myerson, consulting neurologist. Dr. Edwin H. Place has been called in consultation whenever there has been any question of communicable disease. An examination is made routinely of each new admission by Dr. Paul A. Chandler, consulting ophthalmologist, and by Dr. Donald H. Macdonald, consulting otolaryngologist. A report of these examinations is incorporated in the patient's case record, and such treatments as are necessary are carried out. During the year, Dr. Chandler has examined and treated 642 patients in the eye clinic, and 582 patients have been examined and treated by Dr. Macdonald in the nose and throat clinic.

The following articles have been published during the latter part of the year by Dr. Purcell G. Schube of the hospital staff.

"*Blood Cholesterol Studies in Mental Disease. II. Schizophrenia.*" Am. Jour. of Psychiatry, Vol. 12, No. 6, May, 1933.

"*Enecephalography in Abnormal Mental States with Diabetes Insipidus.*" Jour. of Nervous and Mental Diseases, Vol. 78, No. 5, November, 1933.

"*Cerebrospinal Fluid Sugar in Uncomplicated and Untreated Neurosyphilis.*" Am. Jour. of Psychiatry, Vol. 13, No. 2, September, 1933.

On April 6th, Dr. Roy D. Halloran gave a lecture in psychiatry to the third-year students of Tufts College Medical School, and these clinics were continued weekly through the months of April and May by Drs. Halloran, Herrin, and Houser. Beginning on October 3rd, 1932, five weekly clinics in psychiatry were given to the third-year students of the Boston University School of Medicine by Drs. Herrin, Houser, and Osgood. On November 9th, 1932, Dr. LeDrew gave a clinic in psychiatry to the fourth-year students of the Middlesex College of Medicine and Surgery. On May 9, 1933, Dr. Houser conducted a clinic in psychiatry for ten students in the post graduate Public Health course at Harvard Medical School. Forty students taking a course in social pathology under Prof. Havice at Northeastern University visited the hospital with Prof. Havice on February 24th, and

received information from a member of the medical staff relating to the social aspects of psychiatry. In March three clinics in psychiatry were given to the nurses from the Cambridge Hospital by Drs. Houser and Osgood, and on May 9th Dr. LeDrew conducted a clinic in psychiatry for the nurses of Beth Israel Hospital.

A small group of physicians under the auspices of the Rockefeller Foundation visited the hospital, as in preceding years, and were given instruction relating to hospital administration, keeping of records, different forms of commitment, and various methods of treatment.

Regular staff meetings were held as usual throughout the year, with the exception of the summer months. With the opening of the new service at the Psychiatric Clinic, the schedule was changed to include two weekly at the clinic and one weekly at the East Group and at the West Group, with one meeting each month at the pathological laboratory. An effort is made to present at these meetings all new admissions, and all cases about to leave the hospital on visit or to be discharged.

During the first eight months of the year, the venereal clinic was conducted by Dr. Gerald F. Houser, assisted by Drs. Frederick LeDrew and Luther F. Grant. At the end of this time, Dr. Grant was placed in charge of this work and was assisted by Dr. LeDrew. Throughout the entire year, student internes from the Boston University School of Medicine and Tufts College Medical School were given an opportunity to participate in the work and were also instructed in syphilotherapy, particularly as applied to syphilis of the central nervous system. In order to determine the value of thio-bismol in the treatment of syphilis of the central nervous system, this drug was used almost exclusively during the year. Six intravenous injections of sulpharsphenamin and eighteen intravenous injections of try-parasamide were given. Nine hundred and twenty-two intramuscular injections of thio-bismol were given. Thirty-one men and eight women were treated. Thirty-two were suffering from syphilis of the central nervous system, and, of these, nine showed distinct improvement, thirteen grew worse, and ten remained unchanged in a fairly well-preserved state. This is an improvement of 28%. Of the seven patients suffering from vascular syphilis, one showed great improvement, two grew worse, and four showed practically no change. This is an improvement of 14%.

#### RESEARCH DEPARTMENT

The work of the research laboratory under the direction of the Department of Mental Diseases has been continued throughout the year under the supervision of Dr. Abraham Myerson. As in the past few years, there have been associated with him Dr. William Dameshek and Dr. Julius Loman. The biochemical and general technical work was done by Miss Caroline Stephenson and Mr. David Goldman.

During the year, experiments have been conducted in relation to the chemistry of the brain and to the phenomena related to drugs and other conditions. A series of experiments with drugs was conducted as follows: 1. *The effect of insulin.* Ever since the introduction of insulin it has been noted that mental and nervous phenomena take place, the explanation of which has been unknown. A series of experiments was conducted in this hospital in which it was shown that insulin reduces the oxygen use of the brain and increases the intracranial pressure. The reduction in the use of oxygen and the rise in intracranial pressure run parallel with the nervous manifestations shown by the patient. In those cases where few manifestations were present, there was little reduction in the oxygen use and an inconspicuous rise in intracranial pressure. On the other hand, where there was much tremor, sweating, and general nervousness, there was a distinct reduction in oxygen use and a marked rise in intracranial pressure. 2. *The effect of amytal.* It has been definitely shown in our laboratory that amytal markedly diminishes metabolism, so that in the amytal sleep the metabolism drops from twenty to thirty per cent, and in a few cases even more. There seem to be few other changes with amytal. The oxygen and sugar in the brain and the spinal fluid pressure remain fundamentally unaltered. What has been stated of amytal is undoubtedly true of the other drugs of this series. 3. *The effect of caffeine citrate.* Contrasting with amytal and its effects in metabolism is the effect of caffeine citrate given in large doses. Metabolism rises some fifteen to twenty per cent, in some instances thirty per cent, with a dose of about 10 gr. of caffeine citrate. This rise is coincident with a drop in the spinal fluid pressure, but there seem to be almost no other marked

changes that we have been able to note in respect to the intracranial chemistry or dynamics. 4. *The effect of ether.* Ether raises the intracranial pressure, markedly reduces the oxygen use, and although it raises the amount of sugar in the blood, the amount of sugar uptake by the brain seems definitely diminished. Thus, this drug is in marked contrast with amytal in its general effects. It acts very much more forcibly upon pressure and chemical reactions, whereas amytal seems to operate on metabolism and on the brain, probably in some focal way rather than generally.

A very interesting set of experiments has been carried on under the direction of Dr. Loman. He has sought diligently to discover on what factors the spinal fluid pressure depends. It can be stated definitely that posture and the relationship of the veins are of immediate and fundamental importance. By changing the posture the pressure can be varied in an extraordinary way, and in fact a good deal of the spinal fluid pressure is a mechanical result of gravitation. The pressure of the surrounding veins seems to play an important role, as is evidenced by those experiments which he has conducted in which the veins are shifted from their relationship to the spinal fluid spaces by changes in the posture of the individual. This very difficult and important problem is distinctly nearer to an answer as a result of the work which has been done, and is still a subject for investigation by the laboratory. A very important series of experiments has been started, but unfortunately had to be discontinued because of the fact that the machine which was being used was a borrowed one and had to be transferred elsewhere. Dr. F. Gibbs of the Boston City Hospital Nerve Unit collaborated in the measurement of the rate of blood flow through the brain. This is a very important subject and one which has come into increasing prominence in the last few years. By utilizing the internal jugular puncture method, introduced by this laboratory, and the blood flow machine, introduced by Dr. Gibbs, it became possible to measure the flow of blood through the brain. The rate as influenced by drugs and posture was studied. The experiments have not been numerous enough to warrant more detailed statements, but unquestionably results of importance are possible by this method. We are in great need of a blood flow machine. At the present time, however, there are no funds available for the purchase of this elaborate piece of apparatus. The laboratory has continued to supervise the treatment of pernicious anemia and secondary anemia on the wards of the hospital. It has also collaborated with the Boston Psychopathic Hospital in a study of the changes produced by malaria in the blood of patients suffering from general paresis. It has carried on collaborative researches with the pathological laboratory, especially on the hypothalamus, a very important region of the brain, recently coming into research study. The director has also conducted numerous experiments with the pathological laboratory in various staining techniques.

Such work as is being done in the laboratory represents, on the whole, foundation work dealing with the fundamentals of brain and mental physiology. The progress in these matters is necessarily slow, but we feel that the year's work has been definitely satisfactory in that facts of importance have been added to the knowledge of neurology and psychiatry.

The following papers were read by the research staff at a meeting of the Boston Society of Psychiatry and Neurology on October 19, 1933:

*"Pathological Findings in the Hypothalamus in the Psychoses."*

*"The Effect of Posture on Cerebrospinal Fluid Pressure with Theoretical Implications."*

*"The Effects of Insulin and Amytal on Intracranial Conditions and Metabolism."*

*"A Review of the Researches Conducted by Means of the Internal Jugular Puncture Method."*

#### SOCIAL SERVICE DEPARTMENT

The work of this department has continued under the direction of Miss Florence E. Armstrong, head social worker, during the past year. The personnel has remained unchanged, with five paid workers — one psychiatric social worker and three assistant social workers. Two students from the Simmons School of Social Work, one of whom was working for her degree of Bachelor of Science and one for her certificate, spent six months in this hospital. Three young women, one a

graduate of Brown University, and one of the University of Maine, were registered throughout the student year under the State Hospital Training Course. All three took the required courses of lectures in the theory of social case work and in psychiatry at the Simmons School. One has returned to Simmons this fall to complete her course for her degree; one has taken a position in relief work in Rhode Island; and the third is engaged in child placement under the State Department in Maine. Owing to the prevailing economic situation and the consequent increase in the number of unemployed, but little inducement for immediate placement at the conclusion of the course can be offered to those contemplating such training. Because of this fact, those entering the State Hospital Training Course this year have the status of volunteers, without the hitherto prescribed courses in theory at the Simmons School. With the opening of the present year of training, we have resident two of these students, one a graduate of Boston University, and one of the University of Maine. From the outset, they have been trained to be of immediate assistance to the hospital.

The opening of the Psychiatric Clinic last June has offered a new field to the social service department. The clinic features the type of case in which this department is most useful, both from the standpoint of personality study and of social adjustment in after-care. The study of all these cases is assumed by this department as a matter of routine, without having been referred by the physicians.

During the past year, 106 cases admitted for observation, including nine under criminal indictment, have been taken over by the department for social study, with the immediate purpose of assisting in determining whether a psychosis is present. The record of abnormal conduct, if present, in the home and the community, which is frequently difficult to detect in the hospital environment within the brief period of thirty days, is of great value in determining the mental condition of the patient. In addition to this point, however, the application of social service to such cases many times brings out the fact that such admissions to the hospital are symptomatic of unfavorable social situations which, without social study and treatment, will breed mental ill-health, crime, or broken homes. The task of the social service department is not over, therefore, when the patient is discharged Without Psychosis. Often its work is just beginning.

Social Service in the State hospitals of Massachusetts originated in 1913 with the desire of some superintendents that patients should have "after-care". Little emphasis was placed at first upon the study of the patient's social situation to learn what environmental stresses may have assisted in the development of a psychosis; and little consideration was given to the symptoms of the psychosis as expressed in the patient's conduct in the community. As time has passed, the social service departments have found the emphasis shifting, until recently they have been engaged almost entirely in securing diagnostic material for the physicians, with a minimum of time left over for the important "after-care". It is a growing belief among hospital social workers that this situation should be corrected. In this hospital, therefore, more attention is given to the business of maintaining the mental health of improved and recovered patients by painstaking after-care. This, together with the search for causes, we believe is our most important work. With a yearly admission rate of about 750 and a monthly average of 225 on visit daily, it is impossible to do justice to the case of every patient needing our study and later supervision, with a staff of five workers. Until this number is substantially increased, the understanding and care of our patients must be to that extent unsatisfactory.

The following table shows the movement of patients under supervision and the social service work done during the year:

	<i>Males</i>	<i>Females</i>	<i>Totals</i>
In family care September 30, 1932 . . . .	—	10	10
On visit September 30, 1932 . . . . .	93	112	205
On escape September 30, 1932 . . . . .	4	—	4
On visit from family care September 30, 1932 . . . . .	—	—	—
On escape from family care September 30, 1932 . . . . .	—	—	—
Dismissed to family care during the year . . . . .	—	9	9
Went out on visit during the year . . . . .	902	301	1203
Escaped during the year . . . . .	4	—	4

	M.	F.	T.
Went out on visit from family care . . . . .	—	—	—
Escaped from family care . . . . .	—	1	1
Admitted from family care . . . . .	—	7	7
Admitted from visit . . . . .	818	184	1002
Admitted from escape . . . . .	4	—	4
Admitted from visit from family care . . . . .	—	—	—
Admitted from escape from family care . . . . .	—	1	1
Admitted from family care and discharged . . . . .	—	—	—
Admitted from visit and discharged . . . . .	77	94	171
Admitted from escape . . . . .	2	—	2
In family care September 30, 1933 . . . . .	—	11	11
On visit September 30, 1933 . . . . .	100	135	235
On escape September 30, 1933 . . . . .	1	—	1
On visit from family care Sept. 30, 1933 . . . . .	—	—	—
On escape from family care Sept. 30, 1933 . . . . .	—	—	—
Total number of cases considered . . . . .	398	584	982
New cases . . . . .	360	415	775
Renewed cases within the year . . . . .	13	62	75
Renewed cases from previous years . . . . .	11	54	65
Continued cases from previous year . . . . .	14	53	67
Cases closed during the year . . . . .	365	510	876
Cases continued to following year . . . . .	33	74	107

#### PATHOLOGICAL LABORATORY

The work of the pathological laboratory has been carried on during the year under the direction of Dr. Naomi Raskin, with the assistance of one laboratory technician and one volunteer worker. The following is a summary of the routine work of the pathological laboratory for the year: autopsies, 115; bacteriological examinations, 192; blood examinations — red counts, 161, white counts, 173, differential counts, 177, hemoglobin estimations, 157, and reticulocyte counts, 7 — blood sugar determination, 14; fluid from abdominal incision, 1; fluid from chest, 3; gastric contents, 12; icteric index, 4; spinal fluid examinations, 77; sputum examinations, 45; stool examinations, 15; tissue sections — paraffin, 4,123; cell-oidin, 398, frozen, 462, and surgical, 54 — urinalyses, 1,419; Van den Bergh tests, 14; and vomitus examination, 1.

The number of deaths during the year was 272, 115 of which came to autopsy, making the autopsy percentage 42.28 for the year.

The psychoses represented in cases coming to autopsy were as follows: senile psychoses, 18; psychoses with cerebral arteriosclerosis, 58; general paralysis, 8; psychosis with Huntington's chorea, 1; psychoses with brain tumor, 2; psychoses with other brain or nervous disease, 2; alcoholic psychoses, 3; psychoses with other somatic disease, 4; manic-depressive psychoses, 10; dementia praecox, 4; paranoia and paranoid conditions, 3; psychoneurosis, 1; and psychosis with mental deficiency, 1.

The following were the causes of death: acute myocarditis and chronic nephritis, 1; acute suppurative cholecystitis and perforation of cystic duct by stone, 1; acute endocarditis and pulmonary infarct, 1; bronchopneumonia, 3; bronchopneumonia, with chronic myocarditis and chronic nephritis, 1, and with empyema, 1; brain tumor with bronchopneumonia, 1; cancer of colon, 1; cardiorenal vascular disease, 1; cardiovascular renal disease and coronary thrombosis, 1; cerebral hemorrhage and chronic myocarditis, 1; chronic endocarditis and acute rheumatic endocarditis; 1; chronic endocarditis and myocarditis, 1; chronic endocarditis, myocarditis, and bronchopneumonia, 1; chronic myocarditis, 2; chronic myocarditis, with chronic endocarditis, 1, with bronchopneumonia, 1, with pleurisy with effusion, 1, with terminal pneumonia, 1; death during convulsive seizure accompanied by fall, with laceration of chin, abrasions of neck, and diffuse hemorrhage into neck; diabetes mellitus and bronchopneumonia, 1; edema of brain, minor subdural and subarachnoid hemorrhage with contusion of face following fall during convulsion, terminal bronchopneumonia, 1; gangrene of lung, septic embolus of the brain, and septicemia, 1; general arteriosclerosis, 2; general arteriosclerosis with the

following: acute bronchitis, 1, acute endocarditis and chronic myocarditis, 1, acute myelitis, 1, angina pectoris, 1, aortic stenosis, 1; brain abscess secondary to occlusion of cerebral artery, 1; bronchopneumonia, 20; bronchopneumonia, coronary sclerosis, mitral stenosis, and cardiac decompensation, 1; bronchopneumonia and cerebral hemorrhage, 1; cancer of head of pancreas, 1; carcinoma of bladder and bronchopneumonia, 1; cerebral hemorrhage, 1; chronic endocarditis, 1; chronic endocarditis and bronchopneumonia, 1; chronic myocarditis, 13; chronic myocarditis and bronchopneumonia, 9; chronic myocarditis and, cerebral hemorrhage, 1; chronic myocarditis and pulmonary edema, 1; chronic nephritis and bronchopneumonia, 3; cirrhosis of liver and bronchopneumonia, 1; coronary sclerosis, 1; fracture of femur, 1; internal hydrocephalus and bronchopneumonia, 1; lobar pneumonia, 1; lobar pneumonia and cerebral hemorrhage, 1; manic-depressive psychosis and fractured femur 1, and rupture of abdominal aneurysm 1; general paralysis, 3; general paralysis with the following: bronchopneumonia, 2; cancer of stomach 1; chronic endocarditis and bronchopneumonia, 1; and multiple abscesses of lungs, 1; intestinal obstruction, volvulus, 1; lobar pneumonia, 1; lobar pneumonia with the following: acute endocarditis, 1; acute nephritis, 1; simple meningitis, 1; lymphatic leukemia, 1; mitral regurgitation, cerebral embolus, and bronchopneumonia, 1; paralytic agitans, chronic myocarditis, 1; pernicious anemia, 1; and tuberculosis of lungs, 2.

#### DENTISTRY

Dr. George S. Rileigh, the resident dentist, has carried on the dental work of the hospital throughout the year, with the aid of one dental assistant. Within a few days after arrival, each new patient is thoroughly examined and a complete record made of his condition, the various items requiring attention being indicated on dental charts. The use of ether and nitrous oxide as general anesthetics has been continued, as in past years, in cases where a local anesthetic has been contraindicated. The use of gauze drains, curetting of diseased tooth sockets, and suturing have been the regular procedure in the surgical extraction of teeth. As far as possible, an effort is made in this department to restore the mouth to a normal healthy condition. The following is a summary of the work accomplished during the year: examinations, 2,240; extractions, 2,407; fillings, 462; prophylaxis, 581; restorations, 367; treatments, 2,693; and patients treated, 3,323.

#### HYDROTHERAPY

With the opening of the Psychiatric Clinic in June, an increase in the activities of this department occurred. Inasmuch as this building is provided with one tonic bath suite and two commodious sedation suites, an increase in the personnel became necessary. Miss Mary F. Bresnahan, R. N., was placed in charge of the hydrotherapeutic work of the hospital. The work at the East Group continued under the supervision of Mrs. Ina M. Mills until her resignation on August 11, 1933, at which time she was succeeded by Mrs. Helena B. Hubbard. Mr. Eugene Madden, R. N., appointed last year, is hydrotherapist for the male services. During the year, 7,753 continuous baths were given to 132 different patients, — an average number of 58.73 per patient and a daily average of 21.24. The psychoses of patients receiving continuous baths were as follows: psychosis with cerebral arteriosclerosis, 1, or .76%; psychosis with other brain or nervous disease, 1, or .76%; alcoholic psychoses, 2, or 1.51%; psychosis with other somatic disease, 1, or .76%; manic-depressive psychoses, 67, or 50.76%; dementia praecox, 27, or 20.45%; paranoia and paranoid condition, 7, or 5.30%; psychoneuroses and neuroses, 4, or 3.03%; psychoses with mental deficiency, 6, or 4.55%; and undiagnosed psychoses, 16, or 12.12%. Ten thousand seven hundred and ninety-five wet sheet packs were given to 107 different patients, — an average number of 100.9 per patient and a daily average of 29.6. The psychoses of patients receiving wet sheet packs were as follows: general paralysis, 1, or .93%; manic-depressive psychoses, 55, or 51.40%; dementia praecox, 28, or 26.17%; paranoia and paranoid conditions, 9, or 8.41%; epileptic psychoses, 4, or 3.74%; psychoses with mental deficiency, 7, or 6.54%; and undiagnosed psychoses, 3, or 2.81%. Eleven thousand and eighteen tonic treatments were given to 46 different patients, — an average number of 239.52 per patient, and a daily average of 30.18. These were as follows:

salt glows, 453; saline baths, 225; foot baths as preparatory treatments, 636; hot and cold to spine, 218; fomentations to spine and other skin areas, 217; vapor baths, 4; electric light baths, 75; Sitz baths, 37; pail douches, 513; Swedish shampoos, 7; wet sheet packs as preparatory treatments, 6; tub shampoos, 1,015; hair shampoos, 871; rain douches, 1,676; fan douches, 636; and needle sprays, 4,429. The patients receiving tonic treatments represented psychoses as follows: psychosis with other brain or nervous disease, 1, or 2.18%; alcoholic psychoses, 3, or 6.51%; manic-depressive psychoses, 28, or 60.87%; dementia praecox, 1, or 2.18%; psychoneuroses and neuroses, 2, or 4.35%; psychosis with psychopathic personality, 1, or 2.18%; psychosis with mental deficiency, 2, or 4.35%; and undiagnosed psychoses, 8, or 17.38%. Five hundred and ninety-five colonic irrigations and enemata were given to 31 patients, — an average of 19.19 per patients and a daily average of 1.63. Instruction was carried on as usual, and 82 lessons were given.

#### SCHOOL CLINIC

The School Clinic completed its eleventh season of psychiatric service in the public schools of Somerville and Everett. The work is in charge of Alberta S. Guibord, M. D., of the hospital staff, assisted by Edith B. James, B. A., psychometrician. The social service investigations are made by the regular social service staff of this hospital under the direction of Miss Florence E. Armstrong. The school achievement tests were made by teachers especially trained and assigned for the purpose by the School Department: Mrs. Ruth B. Morse of Everett and Miss Winifred Ford of Somerville.

The total number of pupils examined was 511, with the following diagnosis of intelligence: normal (I.Q. 90 to 109), 70, or 13.70%; dull normal (I.Q. 80 to 89), 111, or 21.72%; borderline (I.Q. 70 to 79), 180, or 35.23%; feeble-minded (I.Q. 69 and under), 108, or 21.13%; and deferred, doubtful, 42, or 8.22%. The recommendations for school placements were as follows: special class, 165; institutional, 17; others, 329. Forty-two were diagnosed as psychopathic or neurotic. The recommendations for medical attention were divided as follows: general medical attention, 16; malnutrition, 160; obesity, 10; posture, 29; cardiac, 52; luetic suspects, 2; tuberculosis suspects, 9; dental, 113; visual defects, 99; nose and throat, 106; hearing defect, 22; endocrine, 4; chorea, 3; epilepsy, 1; orthopedic, 7; speech, 9; neurological, 4.

This is the largest number examined in any one year since the inception of the School Clinic. We could not have made this good showing without the generous cooperation of the School Departments of the cities noted above. They loaned us in each case a specially trained teacher to perform a substantial number of the intelligence tests in place of our regular hospital psychometrician, whose time was so taken up by examinations of juvenile delinquents, and hospital patients that she was unable to give the school clinic its usual amount of time. We regret having our time cut in on by other work. We feel that the school clinic is one of the most important departments of psychiatry because of its relation to the prevention of mental disorders and of its possibility of throwing light on the nature of mental disorders that may develop later in any of its subjects. But if the school clinic is to perform such far-reaching service it must have time, personnel, and resources to work out its larger ideals. Another psychometrician is badly needed, to devote her time exclusively to work in the hospital and with juvenile delinquents, so that the entire time of the psychometrician who is now assigned to the school clinic may be available for that work only.

#### TRAINING SCHOOL FOR NURSES

The work of the nursing service has been carried on, as in several years past, under the direction of Miss Mary Alice McMahon, R.N., Principal of the School of Nursing. Eight students were graduated from the training school for psychiatric nurses this year, and seven are now employed in our wards. The fourth year of this school has begun with twenty-eight students in the senior class, and forty-three in the entering class. For entrance to this course a High School education is required, and the instruction is given to all of the ward employees who have the proper educational qualifications. The practical work includes, in the wards, instruction and actual nursing care of patients suffering from the various types

of mental disease. Special attention is given to the nursing care of patients showing symptoms of excitement, depression, confusion, suicidal and homicidal tendencies and epilepsy. Each student receives special instruction in medical and surgical nursing, and practical work with acute and chronic bed cases.

Practical instruction is also given in hydrotherapy, physiotherapy, the preparation and serving of food, the preparation of surgical dressings, and assisting at operations, etc. Lectures, recitations, and demonstrations are held according to schedule. When the term of two years is completed, the pupils are thoroughly qualified, and they will receive, if their conduct and examinations have been satisfactory, a certificate to that effect. The graduates of this course are added to the list of eligibles for promotion in the hospitals.

The systematic instruction of attendant nurses, both male and female, not enrolled in other training school classes, is being conducted along the lines prescribed by the Committee on Training Schools, representing the Department of Mental Diseases, and 172 have received such instruction during the year. We have now in the ward service seven graduates of the Boston State Hospital Training School.

#### OCCUPATIONS AND INDUSTRIES

The work of the occupational therapy department has been carried on throughout the year under the direction of Miss Ethel M. Anderson, head occupational therapist, with ten occupational therapists, including Miss Philbrick, who has had charge of the physical education programs on the wards, as in the preceding year. Patients are engaged in occupational therapy in both the East Group and the West Group, with morning classes in the four classrooms for male patients and three for female patients, and work on the wards in the afternoons, including patients from practically every building on the grounds. Those whose mental condition will permit attend classes twice daily and others once daily, but with some of the senile patients attendance once a week is ample. In the Psychiatric Clinic two new classrooms were opened, one for male and one for female patients, and these are used both morning and afternoon. In the course of a month, about 700 different patients receive occupational therapy, with a daily average of approximately 375.

An effort has been made to get away from the routine subjects as far as possible, as it is realized that repetition becomes monotonous and with it patients are apt to lose interest. Therefore, intricate pattern weaving, more complicated basketry, and detailed wood problems have been introduced for the men, and vari-colored cross-stitch, small patchwork piecing, and book mending have been undertaken by the women, in addition to the more common projects. With the continued treatment cases, as well as the new admissions, we feel that the attempt has been of value. Reading matter has also been carried into the wards, comprising books and magazines of travel, biography, poetry, etc., as well as fiction of all kinds, which can also be procured by the patients in the shops. Another new departure is the supervision of female patients while walking about the grounds. This has been of benefit both physically and mentally. The estimated value of the articles produced during the year was \$988.58, and that of the mending, \$7.66, a total of \$996.24.

As in the past several years, the work of the industrial room for women has been carried on under the direction of Mrs. Madge B. Richardson. The patients are employed in basketry, rug making, lace making, embroidery, knitting, crocheting, sewing, and mending. The estimated value of the articles produced in this department during the year is \$1,256.32 and in the sewing room \$4,967.50 (a total of \$6,223.82), exclusive of mending, the value of which is estimated at \$413.91, making a total of \$6,637.73. The industrial work for the men in the West Group has been directed during the year by Mr. James F. Hurley, as in several years past. This is done entirely in the basement of the B Building in the West Group, and includes shoe repairing and various other repair work, the manufacture of several kinds of brushes, brooms, coat hangers, hats, mattresses, pillows, and numerous other articles. The estimated value of articles produced during the year is \$5,075.77 and of renovations and repairs, \$3,303.40, a total of \$8,379.17. The estimated value of all articles produced during the year is \$12,288.17, and of renovation and repairs, \$3,724.97, making a total of \$16,013.14.



### OCCUPATIONAL THERAPY CENTER AT CITY MILLS, MASSACHUSETTS

The Occupational Therapy Center at City Mills has been conducted again this year by Mrs. Gay, who is in charge of the boarding home, and by Mrs. Barbara Waterman, the occupational therapist. There has been an average of ten patients. The year ended with the work in an unusually satisfactory condition and a noticeable change in the type of patients. A much younger group now predominates. This is due principally to the fact that they are now being drawn from the new Psychiatric Clinic, which, featuring, as it does, recoverable cases, is the natural source of supply. Patients of this type, scattered through the wards of the hospital, are more difficult to select for the Occupational Therapy Center. These patients move quite smoothly from the clinic, with its many and varied methods of treatment, into a supervised home, which supplies the last step in treatment. Thence they are absorbed into their own homes and communities again. There has been one death in the group. This was the oldest member, who was returned to the hospital following a shock. Several other patients have been placed in the community, and one or two who proved unsuitable to continue at the Center have been returned to the hospital. A lively interest in occupational therapy has been displayed by the patients. There have been two sales of patients' handiwork, at which approximately \$200 was taken in. Aside from these sales, articles have been sold separately and on order, increasing this sum to about \$300. Towards the close of the year, the Center was visited by Dr. James V. May, Commissioner of the Department of Mental Diseases, and Dr. Winfred Overholser, Assistant Commissioner. They made recommendations as to additional fire protection, which are to be carried out. The Center is under the general supervision of the Head Social Worker, and Mrs. Sydney Dreyfus continues to act in the capacity of Treasurer.

### AGRICULTURAL ACTIVITIES FOR THE YEAR

Mr. Ralph B. Littlefield has continued in charge of the work of the farm throughout the year. A total of 119 7-8 acres was under cultivation. This consisted of 40¼ acres devoted to gardening and 79 5-8 acres of meadowland. The estimated value of farm products for the year was \$12,393.50.

### FINANCIAL STATEMENT

The maintenance appropriation for the year was \$725,900, with \$30,018.51 brought forward from the preceding year, making a total of \$755,918.51. The expenditures of the hospital for the year were as follows:

	Amount Expended	Per Capita	Percentage of Total
Personal services	\$416,074.04	\$191.610	57.266
Travel, transportation, and office expenses	6,158.09	2.836	.848
Food	131,502.12	60.559	18.099
Clothing and materials	22,444.35	10.336	3.089
Religious instruction	1,941.83	.894	.267
Furnishings and household supplies	29,751.03	13.701	4.094
Medical and general care	18,051.40	8.313	2.484
Heat and other plant operation	76,963.61	35.443	10.593
Farm	4,365.55	2.010	.601
Garage and grounds	2,924.63	1.347	.403
Repairs, ordinary	14,053.98	6.472	1.934
Repairs and renewals	2,339.47	1.077	.322
Total	\$726,570.10	\$334.598	100.000

Based on the average daily population of the hospital, 2,171.46, the per capita cost of maintenance for the year was \$334.598, or \$6.4346 per week. The per capita cost for 1932 was \$361.942, or \$6.9223 per week.

### GENERAL OPERATIONS FOR THE YEAR

On January 11th, Dr. James V. May, who became Superintendent of this hospital on December 1, 1917, assumed the duties of Commissioner of Mental Diseases, to succeed Dr. George M. Kline, who died on January 5th. The responsibility for the administration of the hospital since that time has devolved upon the Assistant Superintendent, who was appointed Acting Superintendent on January 16th.

Except during the summer months, entertainments for patients were given weekly at the East Group chapel. These consisted principally of motion pictures, with occasional dances. The entertainments proved to be a source of great interest to the patients and were attended to the full capacity of the chapel. Christmas was

observed by a musical entertainment for the patients in the chapel at the East Group, and at its conclusion refreshments were served. There was the usual turkey dinner on Christmas Day, and every patient in the hospital was remembered with gifts from relatives or from the hospital. The annual Field Day, the expenses of which were defrayed by the Employees' Club, took place on the grounds of the West Group on June 29. At this entertainment, which was attended by about one thousand patients, various athletic games were held and at its conclusion a baseball game was played. Refreshments were served to all of the patients, and a band concert was given by the House of the Angel Guardian Band of about sixty pieces. The method of transporting the patients from the East Group in Boston Elevated busses was again used. Thanksgiving Day was observed this year, as usual, with a special turkey dinner, which was served to the patients and employees throughout the hospital. The occupation of patients in the Occupational Therapy Department, the industrial shops, and various other departments of the hospital has continued to be stressed, with particular consideration for its therapeutic value.

As in former years, religious services have been held at the hospital every Sunday, and the patients, both Catholic and Protestant, have been visited frequently on the wards. Rev. Frederick G. M. Driscoll, Rev. Harold H. Cramer, and Rev. Frank H. Stedman have rendered this service, as in the preceding year. Rabbi Moses L. Sedar has continued to look after the religious welfare of the Jewish patients.

During the earlier part of the year, work on salvaging and cleaning the bricks, which were left after the old administration building at the East Group was demolished, was completed. Many of these bricks are being used in the construction of the head house of the new greenhouse.

The remodelling of the interior of the East Group chapel was completed in time to be used on Christmas Eve. The old plaster walls were covered with sound-proof tile painted buff; the floor was scraped and refinished; and the toilet sections completed. These changes improved the acoustic properties of the chapel, which now presents a very attractive appearance.

It was necessary to repair the brick foundations under two of the boilers at the power house, which had begun to crumble and were unsafe.

Several poles carrying electric wires at the West Group were blown down during a heavy windstorm in January, and their replacement by new poles was thus necessitated.

Early in the year, the construction of the new road leading from Harvard Street to the Psychiatric Clinic was completed by hospital labor. In the fall, work, which is now progressing rapidly, was resumed on the extension of this road. When completed, it will provide a new thoroughfare from Morton Street to the Psychiatric Clinic and the West Group. It was also found necessary to construct a new service road, for the use of delivery trucks, from the West Group to the rear of the Psychiatric Clinic.

The original water pipes which were installed in the West F Building became so badly corroded and filled with rust that it was found necessary to entirely replace them with brass pipe.

The iron fire escapes on the exteriors of the West C and D Buildings, because of rusted bolts and fastenings, became unsafe for use. These were thoroughly repaired and painted.

On June 15, the Psychiatric Clinic of the Boston State Hospital was opened for the reception of patients. The purposes and general plan for the operation of this building were described in an article by Dr. May published in the September-October number of the "Monthly Bulletin" of the Massachusetts Society for Mental Hygiene, as follows:

"The opening of the Psychiatric Clinic at the Boston State Hospital in June, 1933, marks the inauguration of an entirely new approach to the mental health problem in Massachusetts.

"An analysis of the hospital residence of nearly four thousand consecutive admissions to that institution during a period of ten years, — in other words, all of the admissions during that time, exclusive of deaths and transfers, — shows some very interesting and rather startling results. Nineteen per cent of

these cases had a complete hospital residence of thirty days or less; 45 per cent, of six months or less; and 56 per cent, of one year or less. After five years, 15 per cent of these patients were still in the hospital, and there were only 3 per cent left at the end of ten years. All of this goes to show that a commitment to a State hospital is far from being a life sentence, as many people still believe. The recovery rate, furthermore, is more than twice that of some of our best general hospitals. This furnishes food for thought.

"The purpose of the Psychiatric Clinic is to furnish agreeable surroundings and intensive treatment for the recoverable cases which, it is hoped, may be returned to their homes after six months or less of hospital residence. It is very reasonable to assume that if these persons can be kept from any contact with the senile, arteriosclerotic and infirm, the noisy, violent and destructive patients, and the terminal deteriorated types of dementia praecox found in buildings housing the more or less hopeless cases, it would be productive of better results. The question often asked by those visiting our institutions is, How can you expect anybody to get well in such surroundings? The object of the Psychiatric Clinic is to keep the recoverable cases where they will not come into contact with any form of environment which will detract from the possibility of their getting well.

"The building furnishes facilities for occupational therapy, continuous baths and packs, together with all other forms of hydrotherapy; dental, eye, ear, nose, and throat treatment; X-ray examinations; barber shop and hair-dressing rooms, and the like. Ample space has been provided so that the relatives of patients can spend their entire visiting hours alone with their friends in attractive small rooms designed for that purpose. This does away with the necessity of their visiting in wards. The building also has a room for staff conferences, and a lecture room for the use of those who are in charge of the psychiatric training of medical students. There is a medical library, and one which will furnish books for the use of the patients.

"The day rooms are commodious and attractively furnished. None of the dormitories accommodate more than six patients, and there are numerous single rooms. Each ward has radio connections, and spacious verandas. There are no window guards. The receiving wards have their own dining rooms. The other patients are served in a very attractive cafeteria on the second floor. There are 150 beds in the building, which has no institutional atmosphere and does not conform to the old time-honored ideas of State hospital construction.

"It is to be hoped that these methods of treatment can be used in the other State hospitals in Massachusetts, when funds for such purposes become available."

In the nearly six months that this building has been in operation, it has proved to be most successful, and the results gratifying.

A donation of \$500 was made by the Employees' Club for books to equip the patients' library in the Psychiatric Clinic. This money has been expended, and the books purchased form a library of popular reading amply sufficient for the needs of the patients in this building.

In August, the State Emergency Public Works Commission visited the hospital for the purpose of determining the need for new construction which might be financed by funds made available by the Federal Government under the provisions of the National Industrial Recovery Act.

On September 1, the hospital was visited and inspected by the Commissioner, Associate Commissioners, and the Assistant Commissioner of the Department of Mental Diseases. Various representatives from the Department of Mental Diseases have also visited the hospital from time to time during the year.

On October 11, the hospital was visited and inspected by the Legislative Committee on Public Welfare.

In September, 400 feet of new 8-inch tile drainage pipe was laid at the East Group, to replace old and defective drains.

The long tables in the congregate dining room at the East Group were replaced by eighty cafeteria tables with lino tops, seating four persons each. This change adds materially to the appearance of the dining room, and effects a marked saving

in laundry and cost of replacement of table linen. Three hundred and twenty new chairs were also installed in the same dining room.

The gradual growth of tree roots about the old tile drain for sewage from the West office building to the main sewer finally broke the drain and almost completely obstructed it. This necessitated replacing the old drain with 50 feet of 8" iron pipe.

During the latter part of the year, the work on the new greenhouse was practically completed, and it will soon be ready for use.

The following painting has been done during the year:

East Group. — The interiors of the East A and East F Buildings, and the interior of the kitchen in the staff house.

West Group. — The interiors of the West B, West C and West E-2 Buildings, and the corridor of the office building.

The exterior of the Superintendent's house was also painted.

Renovations, consisting of painting and replacing plaster walls with craftex, were made in a physician's apartment in the West F Building.

Grading about the Psychiatric Clinic building has been started and will be pushed to completion as rapidly as possible.

During the year, an unusually large amount of furniture has been repaired in the carpenter shop.

Again I wish to call attention to the fact that the bed of Stony Brook, which was cleaned out last in 1926, has become filled in. In the present condition of the bed, the brook rapidly fills and overflows its banks at any unusual rainfall. During the heavy rains last fall, the brook overflowed to such an extent that the low meadowland between the East and West Groups was completely inundated, the water reaching the Psychiatric Clinic and overflowing into the basement. This is a condition which could and should be corrected by again cleaning out the brook bed.

On October 5, by invitation of the Superintendent of Nurses of this hospital, District Five of the Massachusetts State Nurses Association held its quarterly meeting at the Psychiatric Clinic. There were about three hundred nurses present at this meeting, which was addressed by a member of the hospital medical staff. Following the address, the building was inspected by members of the association.

On November 14, a symposium on hydrotherapy was held in the lecture hall at the Psychiatric Clinic, under the direction of Dr. Rebekah B. Wright, hydrotherapist of the Department of Mental Diseases. This was attended by thirty-one assistant physicians from the various Massachusetts State Hospitals. Two papers dealing with the subject of hydrotherapy were read, and a general discussion followed. A similar symposium for superintendents of training schools and hydrotherapists was held on November 16th.

#### DEVELOPMENT OF THE HOSPITAL

The following new construction is not only highly desirable but essential if the hospital is to be conducted safely and efficiently.

Attention has been called in previous reports to the inadequate lighting of the hospital grounds, and the necessity for cement walks leading from the hospital buildings at both the East and the West Group to the city streets. Large numbers of visitors come to the hospital daily and are obliged to use temporary paths which become deep with mud during inclement weather. The condition of the roads about the hospital has been growing progressively worse. It is impossible, under existing conditions, to keep these roads in good repair. The necessity for extensive road building has become imperative.

Again I wish to emphasize the fire menace constituted by the old stucco buildings at both the East and the West Group, which several years ago were condemned by the Fire Commissioner of the City of Boston. As long as they are permitted to exist, these buildings will be a source of danger to the lives of the patients and the many employees who live in them. They should be replaced by modern fireproof buildings.

The hospital has long since outgrown the chapel at the East Group, which fulfills the function of an assembly hall for the entire institution. The attendance of patients at entertainments and religious services is limited by the capacity of the hall, which is six hundred. This building is located about one mile from the West

Group, thus making it necessary for the greater number of the patients to go this distance to reach the chapel. A centrally located assembly hall, with a capacity of at least 1,500 people, has long been needed to adequately meet the requirements of the hospital.

As yet, no suitable place for the storage of vegetables has been provided. The space in the basement of the storehouse at the East Group which is still utilized for this purpose is not only entirely too small, but because of its location it is difficult to maintain the correct temperature and atmospheric conditions. For these reasons I strongly urge the construction of a suitable root cellar large enough to provide proper storage for all of the vegetables used at the hospital.

No provision has been made for installing a fence on Walk Hill Street between Canterbury Street and the old stone wall in front of the West Group office building. This is very important on account of the necessity of protecting our gardens, which are frequently raided by trespassers.

The following building projects are being considered for construction under the provisions of the National Industrial Recovery Act. There is an actual and immediate necessity for each of these projects on which work should be started at the earliest possible moment, whether they are financed from the Federal Government or by money obtained by Legislative appropriation.

*New Power Plant.* All of the eight boilers in the present power plant have become antiquated and ineffectual in supplying power and heat for the hospital. Some of these boilers were installed thirty years ago and recently the Boiler Inspection Division of the Department of Public Safety has refused to certify them for the steam pressure that it is necessary to maintain to insure sufficient heat and power, particularly during the winter months. At the present time, the hospital is supplied with both direct and alternating current; all of the buildings at the West Group and four of the buildings at the East Group are on alternating current, the remaining buildings at the East Group being on direct current. This arrangement makes it necessary to run two generators continuously. The entire hospital could be supplied with alternating current by the use of one generator, and this change would be much more economical. The present plant was installed at a time when the hospital was much smaller. As new buildings have been constructed and additional requirements have been made of the power plant, it has been found that it is too small for the needs of the hospital. A new and thoroughly modern plant should be constructed at the earliest possible moment.

*Carpenter Shop.* The present carpenter shop is located in the second story of the power house, directly over the boilers. This space is entirely too small and its proximity to the heating plant is considered unsafe. When a new power plant is installed, it will be necessary to utilize this space for the new type boilers, thus necessitating the construction of a new carpenter shop, which should be a one-story brick building forty by one hundred feet.

*West Medical Office and Employees' Quarters.* Adequate accommodations have never been available for the employees in the West Group of the hospital. I regret to say that we still have over sixty people housed in the unfinished attics of the old stucco buildings. In the West C and D Buildings these quarters can be reached only by going through the wards. This arrangement has led to serious complications from time to time in the past. The rooms in this attic are not fit for occupancy and it is difficult to keep them free from vermin. It has been impossible to retain in the service for any length of time persons who are assigned to these attic rooms. There are nearly one hundred and twenty employees living in ward buildings. The West G Building, for instance, which houses all of the noisy, destructive, and violent male patients in the West Group, has accommodations in the wards for seven male attendants. There are seventy-eight employees living in the West D Building, many of them sleeping two in a room which was originally intended for one patient. This building was designed for the use of patients only, and these seventy-eight employees are now living in quarters intended for patients. We have never had anything like sufficient accommodations for married people. Attention should be called to the fact that we have no suitable accommodations available anywhere for the female employees who are working in the new Psychiatric Clinic. It is necessary for them to live at the East Group. Some have rooms in the nurses'

home, others are occupying quarters intended for domestics, and still others have been assigned to rooms in the attic of the old stucco East F Building. The use of this attic for living quarters was abandoned years ago, but its resumption became necessary with the opening of the Psychiatric Clinic. For these reasons, I would recommend a building for eighty-six, including nine married couples, the first floor to be used for medical office space for the West Group. Our office accommodations in the old building, erected by the City of Boston many years ago, are, and always have been, entirely inadequate, besides being in the wrong location. At the time when this office building was constructed, it was centrally located, but with the development and growth of the hospital it is now remote from many of the ward services, and imposes upon visitors coming to the hospital an unnecessarily long walk to reach it. We propose to take advantage of the necessity of erecting new buildings for employees to remedy this situation.

*Male Employees' Building, West Group.* A building for two hundred male employees will be necessary to house the male employees now living in attics, ward buildings, and the old farm cottage. The present accommodations for these men are very unsatisfactory. It has been necessary to assign the male employees working in the new Psychiatric Clinic to quarters in one of the ward buildings, space which was formerly used by patients and which is not in any way fitted for employees.

*Three Cottages.* The living quarters for members of the medical staff at the West Group have never been suitable. Three of our married physician, all of whom have small children in their families, are living in ward buildings in quarters which are entirely too small. The presence of these children renders such conditions very unsatisfactory. Unless suitable living quarters in the form of cottages are provided for their families, it cannot be expected that these physicians can be retained in the service of this hospital while other hospitals are offering more commodious quarters.

*Laboratory and Mortuary Building.* The need for a new laboratory and mortuary building is urgent. The structure now in use for mortuary purposes is entirely too small. It is unsatisfactory and unfavorably located. It consists of a small addition to one of the old ward buildings, and a worse arrangement cannot be conceived of. The presence of hearses and undertakers' wagons in the vicinity of the ward buildings is highly undesirable. The only laboratory that we have is in the basement of the East C Building. It is below the level of the ground, and the pathologist and technicians have frequently complained of the constant dampness which has been injurious to their health. Both the laboratory and the mortuary are now in need of extensive repairs. It would appear to be inadvisable to spend much money for such repairs. We should have a new laboratory and mortuary building, far removed from any of the ward buildings, and so located that it could be approached from one of the streets adjoining the hospital without necessitating the presence of hearses, undertakers' wagons, etc., in the neighborhood of ward buildings, particularly those which house depressed patients.

*Tuberculosis Building.* No satisfactory provision has ever been made at this hospital for the care of the tubercular patients. Until recently, it was necessary to keep these patients on the wards with the non-tubercular. This was obviously unhygienic and constituted a health menace to the uninfected patients. Temporary and not entirely satisfactory arrangements were made to remedy this condition. A small cottage in the West Group, originally designed for the housing of parole male patients, has been set aside for the care of the quieter tubercular male patients. Those who are restless and mildly disturbed are, by force of circumstances, still treated in infirmary wards with non-tubercular patients. A small ward in the women's infirmary building has been assigned for the use of well-conducted tubercular female patients. This arrangement can at best accommodate only a quiet type of patient, and again it is necessary to keep tubercular women in general infirmary wards. There is an urgent need for a separate tuberculosis building with a capacity of eighty patients.

Respectfully submitted,

HERBERT E. HERRIN,  
*Acting Superintendent.*

## VALUATION

November 30, 1933  
REAL ESTATE

Land, 224.66 acres . . . . .	\$632,034.45
Buildings . . . . .	3,046,957.21
	<u>\$3,678,991.66</u>

## PERSONAL PROPERTY

Travel, transportation and office expenses . . . . .	\$964.62
Food . . . . .	10,981.53
Clothing and materials . . . . .	26,976.08
Furnishings and household supplies . . . . .	303,244.64
Medical and general care . . . . .	18,639.63
Heat and other plant operation . . . . .	6,314.04
Farm . . . . .	10,656.66
Garage and grounds . . . . .	8,068.31
Repairs . . . . .	9,889.21
	<u>\$395,734.72</u>

## SUMMARY

Real estate . . . . .	\$3,678,991.66
Personal property . . . . .	395,734.72
	<u>\$4,074,726.38</u>

## FINANCIAL STATEMENT

*To the Department of Mental Diseases:*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1933.

## STATEMENT OF EARNINGS

Board of Patients . . . . .	\$82,783.69
Personal Services	
Reimbursement from Board of Retirement . . . . .	280.78
Sales:	
Travel, transportation and office expenses . . . . .	\$108.24
Food . . . . .	299.63
Furn. and household supplies . . . . .	2.02
Medical and general care . . . . .	2.30
Garage and grounds . . . . .	1.35
Repairs, ordinary . . . . .	18.47
Arts and crafts sales . . . . .	3,193.54
Farm (itemized) — Pigs and hogs . . . . .	5.00
Total sales . . . . .	<u>3,630.55</u>
Miscellaneous:—	
Interest on bank balances . . . . .	\$112.43
Rents . . . . .	120.00
Total miscellaneous . . . . .	<u>232.43</u>
Total earnings for the year . . . . .	<u>\$86,927.45</u>

## MAINTENANCE APPROPRIATION

Balance from previous year, brought forward . . . . .	\$30,018.51
Appropriation, current year . . . . .	725,900.00
Total . . . . .	<u>\$755,918.51</u>

## Analysis of Expenses

Personal services . . . . .	\$416,074.04
Food . . . . .	131,502.12
Medical and general care . . . . .	18,051.40
Religious instruction . . . . .	1,941.83
Farm . . . . .	4,365.55
Heat and other plant operation . . . . .	76,963.61
Travel, transportation and office expenses . . . . .	6,158.09
Garage and grounds . . . . .	2,924.63
Clothing and materials . . . . .	22,444.35
Furnishings and household supplies . . . . .	29,751.03
Repairs ordinary . . . . .	14,053.98
Repairs and renewals . . . . .	2,339.47
Total maintenance expenditures . . . . .	<u>\$726,570.10</u>

Balance of maintenance appropriation, November 30, 1933 . . . . .	29,348.39
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## SPECIAL APPROPRIATIONS

Balance December 1, 1932, brought forward . . . . .	\$114,942.53
Expended during the year (see statement below) . . . . .	\$102,228.68
Reverting to Treasury of Commonwealth (* balances below that are reverting	*3,414.73
	<u>105,643.41</u>
Balance November 30, 1933, carried to next year . . . . .	\$9,299.12

APPROPRIATION	Act or Resolve	Total Amount Appropriated	Expended during Fiscal Year	Total Expended to Date	Balance at End of Year
Administration building . . . . .	1928-127				
	1930-115	\$180,000.00	\$2,711.29	\$180,000.00	-
Employee's Building . . . . .	1930-115				
	1931-460	163,000.00	2,475.25	159,588.07	\$3,411.93
Reception building equipment . . . . .	1931-268	400,000.00	97,042.14	390,700.78	9,299.12
Erection of fence . . . . .	1931-245	15,000.00	-	14,997.20	2.80
		\$758,000.00	\$102,228.68	\$745,286.15	\$12,713.85
Balance reverting to Treasury of the Commonwealth . . . . .					\$3,414.73
Balance carried to next year . . . . .					9,299.12
Total as above . . . . .					\$12,713.85

## PER CAPITA

During the year the average number of patients has been, 2,171.463.

Total cost of maintenance, \$726,570.10.

Equal to a weekly per capita cost of (52 weeks to year) \$6.4346.

Total receipts for the year, \$86,927.45

Equal to a weekly per capita of \$.76984.

Total net cost of maintenance for year, \$639,642.65.

Net weekly per capita, \$.566476.

Respectfully submitted,

ROSE J. COVINO,

Treasurer.

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION  
PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. General Information

Data correct at end of hospital year November 30, 1933

1. Date of opening as a hospital for mental diseases, December 11, 1839.

2. Type of hospital: State since December 1, 1908.

3. Hospital plant:

Value of hospital property

Real estate, including buildings. . . . .

\$3,678,991.66

Personal property. . . . .

395,734.72

Total . . . . .

\$4,074,726.38

Total acreage of hospital property owned, 224.66.

Total acreage under cultivation during previous year, 119 7-8.

4. Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	-	-	-	1	-	1
Acting Superintendent . . . . .	1	-	1	-	-	-
Assistant physicians . . . . .	7	7½	14½	-	1	1
Total physicians . . . . .	8	7½	15½	1	1	2
Stewards . . . . .	1	-	1	-	-	-
Resident dentists . . . . .	1	-	1	-	-	-
Pharmacists . . . . .	1	-	1	-	-	-
Graduate nurses (including Psych.) . . . . .	-	43	43	3	11	14
Other nurses and attendants . . . . .	140	119	259	-	-	-
Occupational therapists . . . . .	-	10	10	-	-	-
Industrial therapists . . . . .	3	-	3	-	-	-
Social workers . . . . .	-	5	5	-	-	-
All other officers and employees . . . . .	92	97	189	-1½	-	-1½
Total officers and employees . . . . .	246	281½	527½	2½	12	14½

NOTE: — The following items, 5-8 inclusive, are for the statistical year ended September 30, 1933.

5. Census of patient population at end of year:

	Actually in Hospital			Absent from Hospital but Still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane . . . . .	840	1,249	2,089	98	138	236
Mental defectives . . . . .	3	6	9	-	1	1
Alcoholics . . . . .	2	-	2	-	-	-
All other cases . . . . .	7	3	10	1	3	4
Total . . . . .	852	1,258	2,110	99	142	241



OTHER RACES:									
Insane . . . . .	28	41	69	2	4	6			
All other cases . . . . .	—	2	2	—	—	—			
Total . . . . .	28	43	71	2	4	6			
Grand Total . . . . .	880	1,301	2,181	101	146	247			
				M.	F.	T.			
6. Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .	77	224	301						
7. Other patients employed in general work of hospital on date of report . . . . .	431	354	785						
8. Average daily number of all patients actually in hospital during year . . . . .	872.05	1,268.90	2,140.95						

TABLE 2. *Financial Statement*

See Treasurer's report for data requested under this table.

NOTE: — The following tables, 3-20 inclusive, are for the statistical year ended September 30, 1933.

TABLE 3. *Movement of Patient Population*

	REGULAR COURT COMMITMENT (INSANE)		TEMPORARY CARE		OBSERVATION			TOTAL ON BOOKS	
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of Institution September 30, 1932 . . . . .	925	1,339	2,264	-	-	-	16	2	18
Admissions during year:									
First admissions . . . . .	224	246	470	53	37	90	11	3	14
Readmissions . . . . .	26	52	78	9	19	28	32	21	53
Transfers from other hospitals for mental diseases . . . . .	20	24	44	-	-	-	-	-	-
Total received during year . . . . .	270	322	592	62	56	118	43	24	67
Total on books during year . . . . .	1,195	1,661	2,856	62	56	118	59	26	85
Discharged from books during year:									
As recovered . . . . .	25	31	56	1	1	2	7	7	14
As improved . . . . .	54	50	104	13	3	16	5	4	9
As unimproved . . . . .	7	14	21	25	30	55	6	-	6
As without psychosis . . . . .	-	2	2	7	11	18	23	11	34
Transferred to other hospitals for mental diseases . . . . .	18	4	22	-	-	-	-	-	-
Died during year . . . . .	125	116	241	16	11	27	3	1	4
Total discharged, transferred and died during year . . . . .	229	217	446	62	56	118	44	23	67
Insane patients remaining on books of hospital at end of hospital year:									
In hospital . . . . .	865	1,298	2,163	-	-	-	15	3	18
On parole or otherwise absent . . . . .	101	146	247	-	-	-	-	-	-
Total . . . . .	966	1,444	2,410	-	-	-	15	3	18
							981	1,447	2,428
							880	1,301	2,181
							101	146	247

TABLE 4. *Nativity of First Admissions and of Parents of First Admission*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States . . . . .	128	126	254	49	44	36	52	52	41
Canada <sup>1</sup> . . . . .	15	26	41	21	23	17	20	24	17
China . . . . .	1	1	2	1	1	1	—	—	—
Denmark . . . . .	2	1	3	1	1	1	—	—	—
England . . . . .	8	6	14	12	16	9	9	7	6
France . . . . .	1	—	1	1	—	—	—	—	—
Germany . . . . .	2	3	5	4	2	2	8	7	6
Greece . . . . .	1	—	1	2	2	2	—	—	—
Ireland . . . . .	31	49	80	69	74	64	92	88	78
Italy . . . . .	15	9	24	21	18	18	9	9	9
Japan . . . . .	1	—	1	1	1	1	—	—	—
Norway . . . . .	—	2	2	—	—	—	2	2	2
Poland . . . . .	4	1	5	4	4	4	2	2	2
Portugal . . . . .	1	—	1	1	1	1	2	2	2
Russia . . . . .	8	7	15	11	10	10	10	9	9
Scotland . . . . .	—	4	4	2	—	—	5	6	2
Sweden . . . . .	2	4	6	3	3	3	7	7	7
Turkey in Asia . . . . .	—	1	1	—	—	—	1	1	1
Wales . . . . .	—	—	—	—	—	—	—	1	—
West Indies <sup>2</sup> . . . . .	—	4	4	—	—	—	4	4	4
Other countries . . . . .	3	1	4	4	4	4	2	2	2
Unascertained . . . . .	1	1	2	17	20	16	21	23	18
Total . . . . .	224	246	470	224	224	189	246	246	206

<sup>1</sup>Includes Newfoundland<sup>2</sup>Except Cuba and Porto Rico.



TABLE 5. *Citizenship of First Admissions*

	Males	Females	Total
Citizens by birth . . . . .	128	126	254
Citizens by naturalization . . . . .	44	35	79
Aliens . . . . .	31	44	75
Citizenship unascertained . . . . .	21	41	62
Total . . . . .	224	246	470

TABLE 6. *Psychoses of First Admissions*

	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses . . . . .				1	-	1
2. Senile psychoses . . . . .				9	28	37
3. Psychoses with cerebral arteriosclerosis . . . . .				74	79	153
4. General paralysis . . . . .				16	2	18
5. Psychoses with cerebral syphilis . . . . .				1	1	2
6. Psychoses with Huntington's chorea . . . . .				-	-	-
7. Psychoses with brain tumor . . . . .				3	-	3
8. Psychoses with other brain or nervous diseases, total . . . . .				6	2	8
Multiple sclerosis . . . . .	1	1	2			
Other diseases . . . . .	5	1	6			
9. Alcoholic psychoses, total . . . . .				24	4	28
Korsakow's psychosis . . . . .	4	2	6			
Acute hallucinosis . . . . .	13	2	15			
Other types, acute or chronic . . . . .	7	-	7			
10. Psychoses due to drugs and other exogenous toxins, total . . . . .				1	1	2
Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined . . . . .	1	-	1			
Gases . . . . .	-	1	1			
11. Psychoses with pellagra . . . . .				-	-	-
12. Psychoses with other somatic diseases, total . . . . .				3	10	13
Exhaustion delirium . . . . .	-	1	1			
Cardio-renal diseases . . . . .	2	3	5			
Diseases of the ductless glands . . . . .	1	1	2			
Other diseases or conditions . . . . .	-	5	5			
13. Manic-depressive psychoses, total . . . . .				50	63	113
Manic type . . . . .	10	9	19			
Depressive type . . . . .	31	45	76			
Other types . . . . .	9	9	18			
14. Involution melancholia . . . . .				2	4	6
15. Dementia praecox (schizophrenia) . . . . .				12	3	15
16. Paranoia and paranoid conditions . . . . .				7	26	33
17. Epileptic psychoses . . . . .				2	2	4
18. Psychoneuroses and neuroses, total . . . . .				2	4	6
Neurasthenic type . . . . .	2	4	6			
19. Psychoses with psychopathic personality . . . . .				1	-	1
20. Psychoses with mental deficiency . . . . .				5	12	17
21. Undiagnosed psychoses . . . . .				5	2	7
22. Without psychosis, total . . . . .				-	3	3
Psychopathic personality without psychosis . . . . .	-	1	1			
Others . . . . .	-	2	2			
Total . . . . .				224	246	470

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			Traumatic			Senile			With cerebral arteriosclerosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	11	17	28	—	—	—	—	4	4	5	5	10
Chinese	1	—	1	—	—	—	1	—	1	—	—	—
English	10	10	20	—	—	—	—	1	1	5	3	8
French	1	1	2	—	—	—	—	—	—	1	1	2
German	2	9	11	—	—	—	—	—	—	2	1	3
Greek	2	1	3	—	—	—	—	—	—	—	—	—
Hebrew	9	11	20	—	—	—	—	—	—	—	3	3
Irish	74	95	169	—	—	—	2	7	9	27	35	62
Italian <sup>1</sup>	20	10	30	1	—	1	—	1	1	6	4	10
Japanese	1	—	1	—	—	—	1	—	1	—	—	—
Lithuanian	3	2	5	—	—	—	—	—	—	1	—	1
Portuguese	1	2	3	—	—	—	—	—	—	1	—	1
Scandinavian <sup>2</sup>	4	10	14	—	—	—	—	1	1	2	4	6
Scotch	1	4	5	—	—	—	—	—	—	—	1	1
Slavonic <sup>3</sup>	5	2	7	—	—	—	—	—	—	1	—	1
Other specific races	2	—	2	—	—	—	1	—	1	—	—	—
Mixed	76	70	146	—	—	—	4	14	18	22	21	43
Race unascertained	1	2	3	—	—	—	—	—	—	1	1	2
Total	224	246	470	1	—	1	9	28	37	74	79	153

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	General paralysis			With cerebral syphilis			With brain tumor			With other brain or nervous diseases			Alcoholic		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	2	—	2	1	—	1	—	—	—	—	—	—	—	—	—
English	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	2	—	2	—	—	—	—	—	—	1	1	—	1	—	1
Irish	4	—	4	—	—	—	1	—	1	1	—	1	12	2	14
Italian <sup>1</sup>	2	—	2	—	—	—	1	—	1	—	—	—	2	—	2
Japanese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Mixed	4	1	5	—	1	1	1	—	1	5	1	6	5	2	7
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	16	2	18	1	1	2	3	—	3	6	2	8	24	4	28

<sup>1</sup>Includes "North" and "South"<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Due to drugs and other exogenous toxins			With other somatic diseases			Manic-depressive			Involution melancholia			Dementia praecox			Paranoia and paranoid conditions		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	-	-	-	-	-	-	6	6	-	-	-	2	-	2	-	-	-
Chinese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English	-	-	-	-	-	-	3	2	5	-	-	-	2	-	2	-	1	1
French	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German	-	-	-	-	-	-	-	3	3	-	2	2	-	-	-	-	2	2
Greek	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	1	-	1
Hebrew	-	-	-	-	1	1	5	3	8	-	-	-	-	-	-	-	1	1
Irish	-	-	-	1	5	6	14	16	30	1	2	3	5	2	7	2	17	19
Italian <sup>1</sup>	-	-	-	-	-	-	6	3	9	-	-	-	-	-	-	1	2	3
Japanese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuanian	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-
Portuguese	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	-	-	-	-	-	-	-	3	3	-	-	-	1	1	-	-	-	-
Scotch	-	1	1	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup>	-	-	-	1	-	1	1	2	3	-	-	-	-	-	-	1	-	1
Other specific races	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed	1	-	1	1	4	5	20	18	38	1	-	1	3	-	3	2	3	5
Race unascertained	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	1	2	3	10	13	50	63	113	2	4	6	12	3	15	7	26	33

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Epileptic psychoses			Psycho-neuroses and neuroses			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	-	-	-	-	-	-	-	-	1	-	1	-	1	1	-	1	1
English	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-
French	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Greek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew	-	1	1	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-
Irish	-	-	-	1	2	3	-	-	-	1	4	5	2	1	3	-	2	2
Italian <sup>1</sup>	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Japanese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuanian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	-	-	-	1	-	1	-	-	-	-	1	1	-	-	-	-	-	-
Scotch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other specific races	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed	1	1	2	-	2	2	1	-	1	2	2	4	3	-	3	-	-	-
Race unascertained	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Total	2	2	4	2	4	6	1	-	1	5	12	17	5	2	7	-	3	3

<sup>1</sup>Includes "North" and "South"<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	9	28	37	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	74	79	153	—	—	—	—	—	—	—	—	—
4. General paralysis . . . . .	16	2	18	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis . . . . .	1	1	2	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	3	—	3	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	6	2	8	—	—	—	—	—	—	1	1	1
9. Alcoholic . . . . .	24	4	28	—	—	—	1	—	1	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	3	10	13	—	—	—	—	—	—	—	—	—
13. Manic-depressive . . . . .	50	63	113	—	1	1	10	2	12	8	3	11
14. Involution melancholia . . . . .	2	4	6	—	—	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	12	3	15	—	—	—	—	—	—	2	2	4
16. Paranoia and paranoid conditions . . . . .	7	26	33	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	2	2	4	—	—	—	1	1	2	—	—	—
18. Psychoneuroses and neuroses . . . . .	2	4	6	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	1	—	1	1	—	1	—	—	—	—	—	—
20. With mental deficiency . . . . .	5	12	17	—	1	1	—	2	2	1	4	5
21. Undiagnosed psychoses . . . . .	5	2	7	—	—	—	1	—	1	1	—	1
22. Without psychosis . . . . .	—	3	3	—	—	—	—	—	—	—	—	—
Total . . . . .	224	246	470	1	2	3	13	5	18	12	10	22

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued*

PSYCHOSES	25-29 years			30-34 years			35-39 years			40-44 years			45-49 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	1	1	1	1	2
3. With cerebral arteriosclerosis . . . . .	—	—	—	—	—	—	—	—	—	1	—	1	—	1	1
4. General paralysis . . . . .	—	—	—	1	—	1	3	—	3	1	—	1	—	—	—
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	2	1	3	—	—	—	1	—	1	1	—	1
9. Alcoholic . . . . .	—	—	—	2	—	2	3	1	4	5	—	5	2	—	2
10. Due to drugs and other exogenous toxins . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	1	1
11. With pellagra . . . . .	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	—	1	—	—	—	—	2	2	—	4	4	1	—	1
13. Manic-depressive . . . . .	3	6	9	2	12	14	3	10	13	2	6	8	2	7	9
14. Involution melancholia . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	2	—	2	5	—	5	2	—	2	1	1	2	—	—	—
16. Paranoia and paranoid conditions . . . . .	—	—	—	—	2	2	2	—	2	1	5	6	—	7	7
17. Epileptic psychoses . . . . .	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	—	1	—	2	2	1	—	1	—	1	1	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	1	—	1	—	1	1	2	1	3	1	1	2	—	2	2
21. Undiagnosed psychoses . . . . .	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	2	2	—	—	—	—	—	—	—	1	1
Total . . . . .	9	6	15	12	22	34	17	14	31	14	19	33	7	20	27



TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	50-54 years			55-59 years			60-64 years			65-69 years			70 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	1	1	-	2	2	-	4	4	9	21	30
3. With cerebral arteriosclerosis . . . . .	2	3	5	6	3	9	12	9	21	8	16	24	45	46	91
4. General paralysis . . . . .	2	-	2	2	-	2	2	-	2	3	1	4	2	-	2
5. With cerebral syphilis . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	1	-	1	-	-	-	-	-	-	1	-	1
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-
9. Alcoholic . . . . .	2	-	2	3	-	3	4	1	5	2	-	2	-	2	2
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	1	1	2	-	1	1	-	1	1	-	-	-	-	1	1
13. Manic-depressive . . . . .	7	7	14	10	5	15	2	4	6	-	-	-	1	-	1
14. Involution melancholia . . . . .	-	2	2	1	2	3	1	-	1	-	-	-	-	-	-
15. Dementia præcox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	1	4	5	1	6	7	-	2	2	1	-	1	1	-	1
17. Epileptic psychoses . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Unidagnosed psychoses . . . . .	1	-	1	1	-	1	-	1	1	1	-	1	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	17	19	36	25	18	43	21	20	41	17	21	38	59	70	129

TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	Total			Illiterate			Reads Only		Reads and writes		Common School			High School			College		Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	28	29	—	3	3	—	—	2	1	—	1	—	1	—	—	—	—	—	—	—
2. Senile . . . . .	9	79	88	—	7	15	—	—	4	9	13	6	14	20	3	11	14	3	1	4	—
3. With cerebral arteriosclerosis . . . . .	74	153	227	8	15	23	1	2	4	9	13	40	26	66	3	11	14	3	1	4	—
4. General paralysis . . . . .	16	2	18	—	—	—	—	—	1	—	1	8	—	8	1	1	2	1	—	—	—
5. With cerebral syphilis . . . . .	1	1	2	—	—	—	—	—	—	—	—	1	1	2	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	3	—	3	1	—	1	—	—	—	—	—	2	—	2	2	—	2	—	—	—	—
8. With other brain or nervous diseases . . . . .	6	2	8	—	—	—	—	—	—	—	—	3	1	4	4	—	4	—	—	—	—
9. With other brain or nervous diseases . . . . .	24	4	28	2	1	3	2	—	2	2	3	13	3	16	5	—	5	1	—	1	—
10. Alcoholic . . . . .	1	1	2	—	—	—	—	—	—	—	—	1	—	1	1	1	1	—	—	—	—
11. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With pellagra . . . . .	3	10	13	—	—	—	—	—	1	1	2	1	5	6	1	1	2	1	—	—	—
13. With other somatic diseases . . . . .	50	63	113	1	2	3	1	—	1	2	3	26	41	67	16	16	32	3	—	3	—
14. Manic-depressive . . . . .	2	4	6	1	—	—	—	—	—	—	—	1	4	5	3	2	5	1	—	—	—
15. Involution melancholia . . . . .	12	3	15	—	—	—	—	—	2	3	5	8	1	9	3	2	5	1	—	—	—
16. Dementia praecox . . . . .	7	26	33	—	—	—	—	—	—	—	—	4	21	25	1	2	3	—	—	—	—
17. Paranoia and paranoid condition . . . . .	2	2	4	—	—	—	—	—	—	—	—	2	2	4	—	2	2	—	—	—	—
18. Epileptic psychoses . . . . .	2	4	6	—	—	—	—	—	—	—	—	2	2	4	—	2	2	—	—	—	—
19. Psychoneuroses and neuroses . . . . .	1	1	2	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—
20. With psychopathic personality . . . . .	5	12	17	—	4	4	—	—	—	2	2	4	6	10	—	—	—	—	—	—	—
21. With mental deficiency . . . . .	5	2	7	—	—	—	—	—	—	2	2	4	3	6	4	1	1	—	—	—	—
22. Undiagnosed psychoses . . . . .	—	3	3	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
23. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	224	246	470	13	17	30	2	1	3	13	21	126	130	256	33	38	71	10	3	13	27
																					63

TABLE 10. Population of Place of Residence of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	Total			0-2,499			2,500-9,999			10,000-24,999			25,000-49,999			50,000-99,999			100,000-249,999			250,000-499,999			500,000+		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	28	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	27	28
2. Senile	9	74	83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	73	82	
3. With cerebral arteriosclerosis.	74	79	153	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73	73	146	
4. With general paralysis	16	2	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	2	18	
5. With cerebral syphilis	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	
6. With Huntington's chorea	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	
7. With brain tumor	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	5	
8. With other brain or nervous diseases	6	2	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	2	8	
9. Alcoholic	24	4	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	4	28	
10. Due to drugs and other exogenous toxins	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	
11. With pellagra	3	10	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	10	13	
12. With other somatic diseases	50	63	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	61	111	
13. Manic-depressive	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	6	
14. Involution melancholia	12	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	3	15	
15. Dementia praecox	17	26	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	26	33	
16. Paranoia and paranoid conditions.	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	4	
17. Epileptic psychoses	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	4	
18. Psychoneuroses and neuroses	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	4	
19. With psychopathic personality	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	
20. With mental deficiency	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	10	
21. Undiagnosed psychoses	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	10	
22. Without psychosis	3	3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	6	
Total	224	246	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	223	237	460	

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Dependent			Marginal			Comfortable			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
2. Senile . . . . .	9	28	37	4	4	8	5	20	25	—	—	—	—	4	4
3. With cerebral arterio-sclerosis . . . . .	74	79	153	39	24	63	32	45	77	—	2	2	3	8	11
4. General paralysis . . . . .	16	2	18	5	—	5	9	1	10	1	—	1	1	1	2
5. With cerebral syphilis . . . . .	1	1	2	1	1	2	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	3	—	3	2	—	2	1	—	1	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	6	2	8	3	2	5	3	—	3	—	—	—	—	—	—
9. Alcoholic . . . . .	24	4	28	4	1	5	19	3	22	—	—	—	1	—	1
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	—	—	—	1	1	2	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	3	10	13	2	1	3	1	7	8	—	2	2	—	—	—
13. Manic-depressive . . . . .	50	63	113	12	10	22	37	51	88	1	—	1	—	2	2
14. Involution melancholia . . . . .	2	4	6	—	—	—	2	4	6	—	—	—	—	—	—
15. Dementia praecox . . . . .	12	3	15	4	—	4	8	3	11	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	7	26	33	1	5	6	6	21	27	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	2	2	4	1	—	1	—	2	2	—	—	—	1	—	1
18. Psychoneuroses and neuroses . . . . .	2	4	6	1	—	1	1	4	5	—	—	—	—	—	—
19. With psychopathic personality . . . . .	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	5	12	17	3	5	8	2	7	9	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	5	2	7	1	1	2	4	1	5	—	—	—	—	—	—
22. Without psychosis . . . . .	—	3	3	—	—	—	—	3	3	—	—	—	—	—	—
Total . . . . .	224	246	470	84	54	138	132	173	305	2	4	6	6	15	21

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
2. Senile . . . . .	9	28	37	3	21	24	1	1	2	3	—	3	2	6	8
3. With cerebral arterio-sclerosis . . . . .	74	79	153	16	35	51	26	18	44	19	4	23	13	22	35
4. General paralysis . . . . .	16	2	18	1	1	2	6	—	6	4	—	4	5	1	6
5. With cerebral syphilis . . . . .	1	1	2	1	1	2	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	3	—	3	—	—	—	3	—	3	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	6	2	8	1	2	3	3	—	3	1	—	1	1	—	1
9. Alcoholic . . . . .	24	4	28	—	—	—	—	—	—	24	4	28	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	—	—	—	1	—	1	—	1	1	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	3	10	13	1	5	6	1	3	4	1	—	1	—	2	2
13. Manic-depressive . . . . .	50	63	113	23	31	54	17	25	42	9	5	14	1	2	3
14. Involution melancholia . . . . .	2	4	6	—	4	4	1	—	1	1	—	1	—	—	—
15. Dementia praecox . . . . .	12	3	15	8	2	10	3	1	4	1	—	1	—	—	—
16. Paranoia and paranoid conditions . . . . .	7	26	33	3	15	18	3	11	14	—	—	—	1	—	1
17. Epileptic psychoses . . . . .	2	2	4	1	2	3	—	—	—	1	—	1	—	—	—
18. Psychoneuroses and neuroses . . . . .	2	4	6	2	—	2	—	4	4	—	—	—	—	—	—
19. With psychopathic personality . . . . .	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	5	12	17	5	9	14	—	3	3	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	5	2	7	2	1	3	1	1	2	2	—	2	—	—	—
22. Without psychosis . . . . .	—	3	3	—	—	—	—	2	2	—	1	1	—	—	—
Total . . . . .	224	246	470	68	129	197	67	69	136	66	15	81	23	33	56



TABLE 14. *Psychoses of Readmissions*

PSYCHOSES	Males	Females	Total
1. Traumatic psychoses . . . . .	—	—	—
2. Senile psychoses . . . . .	1	1	2
3. Psychoses with cerebral arteriosclerosis . . . . .	—	4	4
4. General paralysis . . . . .	—	1	1
5. Psychoses with cerebral syphilis . . . . .	—	—	—
6. Psychoses with Huntington's chorea . . . . .	—	—	—
7. Psychoses with brain tumor . . . . .	—	—	—
8. Psychoses with other brain or nervous diseases . . . . .	—	1	1
9. Alcoholic psychoses . . . . .	4	2	6
10. Psychoses due to drugs and other exogenous toxins . . . . .	—	—	—
11. Psychoses with pellagra . . . . .	—	—	—
12. Psychoses with other somatic diseases . . . . .	—	1	1
13. Manic-depressive psychoses . . . . .	14	28	42
14. Involution melancholia . . . . .	—	—	—
15. Dementia praecox . . . . .	3	5	8
16. Paranoia and paranoid conditions . . . . .	1	5	6
17. Epileptic psychoses . . . . .	1	—	1
18. Psychoneuroses and neuroses . . . . .	—	1	1
19. Psychoses with psychopathic personality . . . . .	—	1	1
20. Psychoses with mental deficiency . . . . .	1	2	3
21. Undiagnosed psychoses . . . . .	1	—	1
22. Without psychosis . . . . .	—	—	—
Total . . . . .	26	52	78

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	—	—	—	2	—	2	—	—	—
2. Senile . . . . .	—	7	7	—	2	2	—	2	2	—	3	3
3. With cerebral arteriosclerosis . . . . .	17	5	22	—	—	—	14	4	18	3	1	4
4. General paralysis . . . . .	2	—	2	—	—	—	2	—	2	—	—	—
5. With cerebral syphilis . . . . .	1	—	1	—	—	—	1	—	1	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	2	2	4	—	—	—	2	2	4	—	—	—
9. Alcoholic . . . . .	13	3	16	6	1	7	7	—	7	—	2	2
10. Due to drugs and other exogenous toxins . . . . .	1	2	3	1	1	2	—	1	1	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	2	2	—	1	1	—	1	1	—	—	—
13. Manic-depressive . . . . .	30	45	75	14	22	36	14	21	35	2	2	4
14. Involution melancholia . . . . .	—	3	3	—	—	—	—	2	2	—	1	1
15. Dementia praecox . . . . .	8	8	16	—	—	—	6	6	12	2	2	4
16. Paranoia and paranoid conditions . . . . .	3	10	13	—	1	1	3	7	10	—	2	2
17. Epileptic psychoses . . . . .	1	1	2	—	—	—	1	1	2	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	2	2	—	—	—	—	1	1	—	1	1
19. With psychopathic personality . . . . .	1	2	3	1	1	2	—	1	1	—	—	—
20. With mental deficiency . . . . .	5	3	8	3	2	5	2	1	3	—	—	—
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychoses . . . . .	—	2	2	—	—	—	—	—	—	—	—	—
Total . . . . .	86	97	183	25	31	56	54	50	104	7	14	21

TABLE 15-A. *Hospital Residence During This Admission of First Court Admissions Discharged During 1933.*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	1.00	—	1.00
2. Senile . . . . .	—	6	6	—	.42	.42
3. With cerebral arteriosclerosis . . . . .	17	5	22	1.40	.50	1.19
4. General paralysis . . . . .	1	—	1	.50	—	.50
5. With cerebral syphilis . . . . .	1	—	1	1.38	—	1.38
6. With Huntington's chorea . . . . .	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	2	1	3	3.35	.50	2.40
9. Alcoholic . . . . .	10	2	12	.64	.50	.67
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	.50	.50	.50
11. With pellagra . . . . .	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	2	2	—	.50	.50
13. Manic-depressive . . . . .	15	25	40	.97	.76	.84
14. Involution melancholia . . . . .	—	1	1	—	.50	.50
15. Dementia praecox . . . . .	1	4	5	.50	2.00	1.70
16. Paranoia and paranoid conditions . . . . .	2	6	8	.50	1.66	1.37
17. Epileptic psychoses . . . . .	1	1	2	2.00	.50	1.75
18. Psychoneuroses and neuroses . . . . .	—	2	2	—	2.00	2.00
19. With psychopathic personality . . . . .	—	—	—	—	—	—
20. With mental deficiency . . . . .	4	3	7	.96	2.50	1.62
21. Undiagnosed psychoses . . . . .	—	—	—	—	—	—
22. Without psychosis . . . . .	—	1	1	—	.29	.29
Total . . . . .	57	60	117	1.11	.95	1.03





TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses — Concluded

CAUSES OF DEATH	Involution melancholia		Dementia, praecox		Paranoia and paranoid conditions		Epileptic psychoses		Psycho- neuroses and neuroses		With mental deficiency		All other psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious Diseases</i>															
Tuberculosis of the respiratory system . . . . .	-	-	6	3	9	-	1	1	-	-	-	-	-	1	1
Tuberculosis of other organs . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Other infectious diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>General Diseases not Included in Class I</i>															
Cancer and other malignant tumors . . . . .	-	1	1	-	1	2	-	2	-	-	-	-	-	1	-
Diabetes . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other general diseases . . . . .	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-
<i>Diseases of the Nervous System</i>															
Cerebral hemorrhage, apoplexy . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General paralysis of the insane . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Circulatory System</i>															
Endocarditis and myocarditis . . . . .	-	-	3	3	6	-	2	2	-	1	-	1	5	1	6
Angina pectoris . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of the heart . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Other diseases of the arteries . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of the circulatory system . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Respiratory System</i>															
Bronchitis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bronchopneumonia . . . . .	1	1	1	1	1	-	-	-	-	-	-	-	-	1	3
Lobar pneumonia . . . . .	-	-	1	1	1	-	-	-	-	-	1	1	-	1	-
Pleurisy . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of the respiratory system (tuberculosis excepted)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Digestive System</i>															
Ulcer of stomach and duodenum . . . . .	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-
Diarrhea and enteritis . . . . .	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Appendicitis and typhilitis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hernia and intestinal obstruction . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cirrhosis of liver . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of liver . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Other diseases of digestive system (cancer and tuberculosis excepted)	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-
<i>Non-Veneral, Diseases of Genito-Urinary System and Anæmia</i>															
Nephritis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Diseases of bladder . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Skin and of the Cellular Tissue</i>															
Gangrene . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of skin and annæa . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>External Causes</i>															
Accidental traumatism . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other external causes . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	1	1	2	11	8	19	2	4	6	1	1	2	1	10	18

Includes group 22, "without psychosis."



TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses — Concluded

Psychoses										45-49 years			50-54 years			55-59 years			60-64 years			65-69 years			70 years and over										
										M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.								
1. Traumatic . . . . .										-	-	-	-	-	-	1	1	2	3	3	1	4	-	1	1	4	-	1	4	4	26	30			
2. Senile . . . . .										-	-	-	-	-	-	-	-	3	3	6	8	3	4	3	9	7	16	33	36	69					
3. With cerebral arteriosclerosis . . . . .										1	-	1	1	2	3	1	3	1	4	3	1	2	2	1	3	2	2	1	3	2	2				
4. General paralysis . . . . .										1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
5. With cerebral syphilis . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
6. With Huntington's chorea . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7. With brain tumor . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
8. With other brain or nervous diseases . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
9. Alcoholic . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
10. Due to drugs and other exogenous toxins . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11. With pellagra . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12. With other somatic diseases . . . . .										1	-	1	-	2	2	-	2	2	-	1	1	1	-	1	1	-	-	-	-	-	-	-	-	-	
13. Manic-depressive . . . . .										-	-	-	-	1	1	1	6	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14. Involution melancholia . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .										1	2	3	-	2	2	-	2	1	3	4	2	2	3	-	1	1	-	1	1	-	1	2	3	-	-
16. Paranoia and paranoid conditions . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .										1	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21. Undiagnosed psychoses . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .										5	2	7	7	8	15	16	9	25	18	10	28	48	66	114											



TABLE 18. Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses — Concluded

PSYCHOSES	5-6 years		7-8 years		9-10 years		11-12 years		13-14 years		15-19 years		20 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	7	8	1	1	2	1	1	2	1	1	2	1	1	2
2. Senile . . . . .	3	6	9	1	1	2	1	1	2	1	1	2	1	1	2
3. With cerebral arteriosclerosis . . . . .	2	1	3	1	1	2	1	1	2	1	1	2	1	1	2
4. General paralysis . . . . .	1	4	5	1	1	2	1	1	2	1	1	2	1	1	2
5. With cerebral syphilis . . . . .	1	2	3	1	1	2	1	1	2	1	1	2	1	1	2
6. With Huntington's chorea . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
7. With brain tumor . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
8. With other brain or nervous diseases . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
9. Alcoholic . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
11. With pellagra . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
12. With other somatic diseases . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
13. Manic-depressive . . . . .	2	2	4	1	1	2	1	1	2	1	1	2	1	1	2
14. Involution melancholia . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
15. Dementia praecox . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
16. Paranoia and paranoid conditions . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
17. Epileptic psychoses . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
18. Psychoneuroses and neuroses . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
19. With psychopathic personality . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
20. With mental deficiency . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
21. Undiagnosed psychoses . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
22. Without psychosis . . . . .	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Total . . . . .	7	9	16	2	2	4	5	1	6	2	1	3	7	6	13

TABLE 19. *Average Length of Hospital Stay During the Present Admissions of All Cases in Residence on September 30, 1933*

PSYCHOSES	Number			Average Length of Residence in Years		
	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	7	1	8	13.49	17.50	13.99
2. Senile . . . . .	15	89	104	2.81	4.83	4.54
3. With cerebral arteriosclerosis . . . . .	71	104	175	2.74	2.73	2.73
4. General paralysis . . . . .	42	12	54	1.96	6.32	2.93
5. With cerebral syphilis . . . . .	5	6	11	5.09	11.32	8.49
6. With Huntington's chorea . . . . .	—	1	1	—	1.50	1.50
7. With brain tumor . . . . .	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	13	11	24	5.18	7.57	6.27
9. Alcoholic . . . . .	116	37	153	8.76	10.00	9.06
10. Due to drugs and other exogenous toxins . . . . .	1	1	2	2.50	4.50	3.50
11. With pellagra . . . . .	—	—	—	—	—	—
12. With other somatic diseases . . . . .	3	14	17	2.80	2.47	2.53
13. Manic-depressive . . . . .	151	289	440	3.95	5.89	5.22
14. Involution melancholia . . . . .	7	33	40	7.92	8.55	8.44
15. Dementia praecox . . . . .	318	418	736	14.05	14.06	14.06
16. Paranoia or paranoid conditions . . . . .	32	161	193	6.14	7.51	7.29
17. Epileptic psychoses . . . . .	13	15	28	11.34	5.56	8.24
18. Psychoneuroses and neuroses . . . . .	6	7	13	3.82	5.33	4.63
19. With psychopathic personality . . . . .	3	12	15	4.81	6.24	5.96
20. With mental deficiency . . . . .	65	79	144	12.65	7.23	9.68
21. Undiagnosed psychoses . . . . .	6	3	9	9.05	1.13	1.01
22. Without psychoses . . . . .	6	8	14	2.14	7.11	4.98
All Clinical Groups . . . . .	880	1,301	2,181	9.07	8.67	8.83

TABLE 20. *Family Care Department*

	Males	Females	Total
Remaining in Family Care September 30, 1932 . . . . .	—	10	10
On visit from Family Care September 30, 1932 . . . . .	—	—	—
Admitted during the year . . . . .	—	9	9
Whole number of cases within the year . . . . .	—	19	19
Dismissed within the year . . . . .	—	8	8
Escaped . . . . .	—	1	1
On visit . . . . .	—	—	—
Returned to institution . . . . .	—	7	7
Returned to institution from escape . . . . .	—	1	1
Returned from visit . . . . .	—	—	—
Remaining in Family Care September 30, 1933 . . . . .	—	11	11
On visit from Family Care September 30, 1933 . . . . .	—	—	—
Number of different persons within the year . . . . .	—	17	17
Number of different persons admitted . . . . .	—	9	9
Number of different persons discharged . . . . .	—	8	8
Average daily number in Family Care during year . . . . .	—	10.73	10.73
Supported by State . . . . .	—	9.61	9.61
Reimbursing . . . . .	—	—	—
Private . . . . .	—	—	—
Self-supporting . . . . .	—	1.12	1.12

The Commonwealth of Massachusetts

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

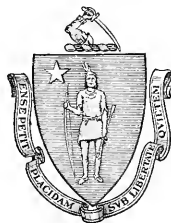
BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1934

THE NINETY-FOURTH ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION ON ADMINISTRATION AND FINANCE  
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OCCUPATIONAL PRINTING PLANT  
DEPARTMENT OF MENTAL DISEASES  
GARDNER STATE HOSPITAL  
EAST GARDNER, MASS.

BOSTON STATE HOSPITAL  
(Post Office Address: Dorchester Center, Mass.)

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TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council:*

The Trustees of the Boston State Hospital have the honor to submit herewith their twenty-sixth annual report covering the year ending November 30, 1934. The detailed operations of the year are shown in the reports of the Superintendent and Treasurer, which are appended.

PATIENTS IN THE CARE OF THE HOSPITAL

At the close of the year there were 2,282 patients in the hospital and 11 in family care. This total compares with 2,156 in the hospital and 13 in family care on November 30, 1933.



## CHANGES IN ADMINISTRATION

In January 1933 the Superintendent, Dr. James V. May, was given an indefinite leave of absence in order that he might accept the appointment of Commissioner of Mental Diseases. He resigned that office in June, and the trustees were very glad to reinstate him as superintendent of the hospital. The rapid and successful development of the institution has been so largely due to his administration that it is a matter of great satisfaction that its affairs are to continue under his direction.

In July, all connected with the institution were saddened by the tidings of the death of Dr. Herbert E. Herrin, the assistant superintendent, who at the time was on his well-earned vacation. During Dr. May's absence Dr. Herrin had served most acceptably as acting superintendent and in his death the hospital lost a most efficient official and the trustees a valued friend.

Mr. Arthur E. Gilman, the steward of the hospital, died in December, 1933. Mr. Gilman had attained a recognized position as one of the ablest stewards in the State service and the hospital had had the benefit of his unremitting supervision of its business affairs for over fifteen years. His place was filled by the appointment of Mr. S. Henry Franks, who had had some experience at the Metropolitan State Hospital. The death of Mr. Gilman has revealed a weakness in our hospital organization in that there are no assistant stewards. Not only should there be an experienced group from which stewards could be appointed, but there should be provision for the relief of the chief business officer of the institution, who has too heavy a burden of responsibility, and for whom there should be a substitute in times of illness and vacation.

## FINANCIAL STATEMENT

The appropriation for maintenance for the past year was \$829,010.41, and the expenditures amounted to \$774,609.28. The average weekly cost of maintenance per patient was \$6.59 as compared with \$6.43 for the preceding year.

The estimate for maintenance for the coming year, based on a population of 2,290, is as follows:

Personal services . . . . .	\$515,068.00
Religious instruction . . . . .	2,080.00
Travel, transportation, etc. . . . .	8,320.00
Food . . . . .	202,000.00
Clothing and materials . . . . .	27,000.00
Heat and other plant operation . . . . .	102,900.00
Medical and general care . . . . .	23,250.00
Furnishings and household supplies . . . . .	40,750.00
Farm . . . . .	8,200.00
Garage and grounds . . . . .	22,950.00
Repairs, ordinary . . . . .	15,300.00
Repairs and renewals . . . . .	20,100.00
Total . . . . .	\$987,918.00

## NEW CONSTRUCTION

There was no special appropriation for construction in 1934, and all construction previously authorized has been completed. Construction of the nine buildings included in the programme financed by the State and the Public Works Administration has made rapid progress. The carpenter shop was completed in June, and the officers' cottages, the West Group office building, the building for 200 male employees, and the laboratory and mortuary building are nearly completed. Two of the four new boilers have been installed in the heating plant and are now in service. Only a few minor contracts remain to be awarded.

Notwithstanding that these projects represent a considerable appropriation, an even larger amount is needed to make the operations efficient and to remove the fire hazard. The trustees have recommended that the following be considered as soon as the means are available:

Assembly Hall . . . . .	\$192,000
Placing electric wires underground, and new steam line from East to West Group . . . . .	121,500

Road construction and sidewalks . . . . .	200,000
Sewage and surface draining system . . . . .	25,000
Grading . . . . .	15,000
Laundry equipment . . . . .	25,510
Three Officers' Cottages . . . . .	50,000
Garage for twenty-five cars . . . . .	30,000
Paint shop . . . . .	16,000
Salvage yard . . . . .	12,000
Recreation Building . . . . .	115,000
Industrial building . . . . .	40,000
Additional story on Laboratory Building . . . . .	23,000
Storehouse (farm equipment) . . . . .	10,000
Replacement of Stucco Buildings:	
East Group:	
East A Building, 76 patients . . . . .	175,000
East E and F Buildings, 200 patients . . . . .	490,000
East Kitchen and Dining Room Building . . . . .	265,000
Remodelling old East Dining Room Building for storage purposes . . . . .	75,000
East Fire House . . . . .	6,000
West Group:	
West C Building, 170 patients . . . . .	435,000
West D Building, 170 patients . . . . .	435,000
West Staff House . . . . .	83,000
West Kitchen and Dining Room Building . . . . .	320,000
Temporary addition to present West Kitchen and Dining Room Building . . . . .	7,500
West Fire House . . . . .	6,000
Razing all old stucco buildings . . . . .	60,000
Total . . . . .	\$3,232,510

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*Trustees.*

## REPORT OF THE SUPERINTENDENT

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1934, and the fiscal year ending November 30, 1934. Founded by the City of Boston in 1839, this marks the completion of its ninety-fifth year as a hospital for mental diseases, and the twenty-sixth year of its history as a State institution.

## MOVEMENT OF POPULATION

The census of the hospital on September 30, 1933, was as follows: in the wards, men, 880, women, 1,301, total, 2,181; at home on visit, men, 100, women, 135, total, 235; boarding out, men, none, women, 11, and out on escape, women, none, men, 1; making a total of 2,428, 981 men and 1,447 women, in the custody of the hospital.

Four hundred and eight men and five hundred and fifteen women, a total of 799, were received during the year. This included the following: first admissions as insane, men, 263, women, 252, total, 515; readmissions as insane, men, 35, women, 53, total, 88; first admissions, temporary care, men, 57, women, 38, total, 95; readmissions, temporary care, men, 37, women, 28, total, 65; and transferred from other institutions, men, 15, women, 21, total, 36. Three hundred and fifty-nine, including 171 men and 188 women, were discharged during the year. Eleven men and six women, a total of 17, were transferred to other institutions. One hundred and sixty-nine men and one hundred and forty-three women, a total of 322, died during the year.

The census on September 30, 1934, was as follows: in the wards, men, 933, women, 1,365, total, 2,298; at home on visit, men, 102, women, 116, total, 218; boarding out, men, none, women, 10; and out on escape, women, none, men, 3; making a total of 2,529, 1,038 men and 1,491 women, in the custody of the hospital.

The total number of cases treated during the year was 3,227, 1,388 men and 1,839 women.

The average daily number of patients for the statistical year was as follows: men, 1,020.32, women, 1,446.94, total, 2,467.26. The average daily number in the wards was: men, 917.82, women, 1,313.34, total, 2,231.16, or 90.43% of the whole number. The average daily number at home on visit was, men, 100.54, women, 121.22, total, 221.76, or .99%. The average daily number boarding out was, men, none, women, 12.38, or .50%. The average daily number out on escape was, men, 1.96, or .08%. There were no women on escape. The average daily number of committed cases was, men, 904.17, women, 1,305.30, total, 2,209.47, or 99.03% of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was, men, none, women, .014, or .0006%. The average daily number of cases under complaint or indictment was, men, 13.16, women, 2.17, total, 15.33, or .69%. The average daily number of cases of murder acquitted by reason of insanity was, women, none, men, .12, or .005%. The average daily number of cases of insane prisoners under sentence, was, women, none, men, .60, or .027%. The average daily number of temporary care cases, all forms, was, men, 13.65, women, 8.04, total, 21.69 or .97%. The average daily number of epileptics was, men, 14.00, women, 19.00, total, 33.00, or 1.48%. The average daily number of tubercular patients was, men, 19.56, women, 42.40, total, 61.96, or 2.78%. The average daily number of reimbursing patients was, men, 71.11, women, 146.03, total, 217.14, or 9.73%. The average daily number of cases supported by the State was, men, 846.71, women, 1,167.31, total, 2,014.02, or 90.27%. The average daily number of ex-service cases on the books was, men, 34.28, women, 2.00, total, 36.28, or 1.48% of the total number on the books. The average daily number of ex-service cases in the hospital was, men, 30.38, women, 2.00, total, 32.38, or 1.45% of the total number of patients in the wards.

The recovery rate, based on the number of all first admissions (610), was 13.77%; based on the total number cared for during the year (3,227), 2.68%; based on the average daily number in the wards (2,231.16), 3.76%; and based on the total number of admissions for the year (799), 10.51%.

The death rate, based on the total number cared for during the year, was 9.98%; and based on the average daily number in the wards, 14.43%. Inasmuch as over 35% of the population is of the infirmary type, and about 10% bed cases, the death rate at this institution is unusually large compared with similar hospitals. There are committed to the Boston State Hospital many acutely ill, senile, and infirm cases from the city that cannot readily be transported to a greater distance. It is obvious, for the same reason, that too much significance should not be attached to the recovery rate. In this connection, attention should be called to the fact that the first admissions for this year represent an average age on admission of 54.8 years.

Of the first admissions as insane, 236, or 45.82%, were foreign born, and 363, or 70.48%, were of foreign parentage on one or both sides. Fifty-four, or 10.48%, were aliens. Citizenship was unascertained in 79, or 15.34%. Of the 6,001 consecutive first admissions for the fourteen-year period ending September 30, 1934, 2,893, or 48.21%, were foreign born; 4,759, or 79.30%, were of foreign parentage on one or both sides; 1,039, or 17.31%, were aliens; and citizenship was unascertained in 660, or 10.99%.

The average age on admission was 54.8 years; 252, or 48.93%, were sixty years of age or over; and 140, or 27.19% were seventy years of age or over. For the fourteen-year period ending September 30, 1934, the average age on admission was 52.71 years; 2,450, or 40.82 per cent, were sixty years of age or over; and 1,353, or 22.54%, were seventy years of age or over.

The first admissions for the year, classified according to legal status, under the General Laws, were as follows:

	<i>Males</i>	<i>Females</i>	<i>Total</i>
Committed cases (Sec. 51, Chap. 123)	185	152	337
Committed cases (Sec. R. C. 77, Chap. 123)	—	1	1
Observation cases (Sec. Obs. 77, Chap. 123)	13	14	27
Emergency cases (Sec. 78, Chap. 123)	—	1	1
Temporary care cases (Sec. 79, Chap. 123)	63	84	147
Prisoners under sentence (Sec. 104, Chap. 123)	2	—	2
<b>Total</b>	<b>263</b>	<b>252</b>	<b>515</b>

The distribution of first admissions for the year, classified according to legal status, as shown by the above table, is therefore as follows: committed cases (Sec. 51, Chap. 123, General Laws), 65.44%; committed cases (Sec. R. C. 77, Chap. 123, General Laws), .19%; observation cases (Sec. 77, Obs., Chap. 123, General Laws), 5.24%; emergency cases (Sec. 78, Chap. 123, General Laws), .19%, temporary care cases (Sec. 79, Chap. 123, General Laws), 28.55%, and prisoners under sentence (Sec. 104, Chap. 123, General Laws), .39%. For the fourteen-year period ending September 30, 1934, the distribution of the 6,001 first admissions classified according to legal status was as follows: committed cases (Sec. 51, Chap. 123, General Laws), 4,076, or 67.92%, cases committed from observation (Sec. R. C. 77, Chap. 123, General Laws, and Chap. 19, Acts of 1924), 7, or .11%; observation cases (Sec. 77, Obs., Chap. 123, General Laws), 285, or 4.75%, emergency cases (Sec. 78, Chap. 123, General Laws), 55, or .91%, temporary care cases (Sec. 79, Chap. 123, General Laws), 1,551, or 25.84%; voluntary cases (Sec. 86, Chap. 123, General Laws), 3, or .06%; one case pending examination and hearing (Sec. 55, Chap. 123, General Laws); one case acquitted of murder by reason of insanity (Sec. 101, Chap. 123, General Laws); and two cases of prisoners under sentence (Sec. 104, Chap. 123, General Laws). The cases (19) held under complaint or indictment (Sec. 100, Chap. 123, General Laws) constitute .31%, but this is misleading, inasmuch as these cases are included only for the first three years of the above period, being counted as temporary care cases since that time. There was also included above one Boston Police case (Chap. 307, Acts of 1910). No voluntary cases have been admitted since 1921.

Of the 515 first admissions for the year, the cause was unascertained or no cause given in 125, or 24.27%. In the 390 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 38, or 9.75%; arteriosclerosis, 196, or 50.26%; syphilis, 15, or 3.85%; alcoholism, 24, or 6.15%; involutional changes, 13, or 3.33%; and traumatism, 4, or 1.03%. There was a family history of mental diseases in 71, or 13.79%, mental defects in 6, or 1.16%, and nervous diseases in 21, or 4.08%, of the first admissions. Of the 6,001 first admissions to the hospital during the fourteen-year period ending September 30, 1934, the cause was unascertained or no cause given in 1,648, or 27.46%. In the 4,353 cases where a definite cause was assigned, the etiological factors are classified as follows: senility, 761, or 17.49%; arteriosclerosis, 1,368, or 31.43%; syphilis, 441, or 10.13%; alcoholism, 455, or 10.45%; involutional changes, 250, or 5.74%; and traumatism, 60, or 1.33%. There was a family history of mental diseases in 978, or 16.30%, mental defects in 109, or 1.81%, and nervous diseases in 235, or 3.91%, of the first admissions during this period.

The forms of mental disease shown by the 515 first admissions for the year, briefly summarized, were as follows: psychoses with syphilitic meningo-encephalitis, 16, or 3.11%; alcoholic psychoses, 27, or 5.24%; psychoses with cerebral arteriosclerosis, 205, or 39.81%; psychoses with convulsive disorders (epilepsy), 10, or 1.94%; senile psychoses, 38, or 7.38%; involutional psychoses, 9, or 1.75%; manic-depressive psychoses, 116, or 22.52%; dementia praecox, 17, or 3.30%; paranoia and paranoid conditions, 36, or 6.99%; psychoses with mental deficiency, 10, or 1.94%; and all other psychoses, one per cent or less. Six, or 1.16%, were without psychosis. The psychoses of all first admissions are shown in Table 7, on page 37.

The forms of mental disease shown by the 6,001 first admissions for the fourteen-year period ending September 30, 1934, are summarized as follows: psychoses with

syphilitic meningo-encephalitis, 413, or 6.88 %; psychoses with other forms of syphilis, 33, or .55 %; psychoses with epidemic encephalitis, none; psychoses with other infectious diseases, 18, or .30 %; alcoholic psychoses, 383, or 6.38 %; psychoses due to drugs, etc., 27, or .45 %; traumatic psychoses, 29, or .48 %; psychoses with cerebral arteriosclerosis, 1,523, or 25.38 %; psychoses with other disturbances of circulation, 59, or .98 %; psychoses with convulsive disorders (epilepsy), 58, or .97 %; senile psychoses, 783, or 13.05 %; involutional psychoses, 120, or 2.00 %; psychoses due to other metabolic diseases, etc., 105, or 1.75 %; psychoses due to new growth, 15, or .25 %; psychoses with organic changes of the nervous system, 91, or 1.51 %; psychoneuroses, 47, or .78 %; manic-depressive psychoses, 988, or 16.47 %; dementia praecox, 502, or 8.37 %; paranoia and paranoid conditions, 368, or 6.13 %; psychoses with psychopathic personality, 37, or .62 %; psychoses with mental deficiency, 171, or 2.85 %; and undiagnosed psychoses, 173, or 2.88 %. Fifty-eight, or .97 %, were without psychosis.

The forms of mental disease shown by the readmissions for the year, committed as insane, were as follows: psychoses with syphilitic meningo-encephalitis, 4, or 4.54 %; alcoholic psychoses, 4, or 4.54 %; psychoses with cerebral arteriosclerosis, 9, or 10.23 %; manic-depressive psychoses, 39, or 44.32 %; dementia praecox, 10, or 11.36 %; paranoia and paranoid conditions, 6, or 6.82 %; psychoses with psychopathic personality, 3, or 3.41 %; each of the following, 2, or 2.27 %: psychoses with epilepsy, senile psychoses, involutional psychoses, and psychoses with mental deficiency; and 1, or 1.14 %, of each of the following: psychoses due to drugs, etc., psychoses due to other metabolic diseases, etc., psychoses with organic changes of the nervous system, and psychoneuroses. One, or 1.14 %, was without psychosis.

On the 88 readmissions, 34, or 38.64 %, were committed under the provisions of Sec. 51, Chap. 123, of the General Laws; 45, or 51.15 %, were temporary care cases (Sec. 79, Chap. 123, General Laws); 8, or 9.08 %, were observation cases (Sec. 77, Obs., Chap. 123, General Laws); and 1, or 1.14 %, a case acquitted of murder by reason of insanity (Sec. 101, Chap. 123, General Laws). No emergency cases (Sec. 78, Chap. 123, General Laws), no voluntary cases (Sec. 86, Chap. 123, General Laws), and no cases pending examination and hearing (Sec. 55, Chap. 123, General Laws), were included in the readmissions for the year.

The total number of insane cases discharged during the year was 215. Of this number, 72, or 33.49 %, were discharged as recovered; 109, or 50.70 %, as improved; 27, or 12.56 %, as unimproved; and 7, or 3.25 %, as without psychosis. Of the 72 recovered cases, 3, or 4.17 %, were cases of alcoholic psychosis; 56, or 77.78 %, manic-depressive psychosis; 3, or 4.17 %, psychosis with mental deficiency; and 1, or 1.40 %, of each of the following: psychosis with syphilitic meningo-encephalitis, psychosis due to drugs, etc., traumatic psychosis, psychosis with cerebral arteriosclerosis, psychosis with epilepsy, involutional psychosis, psychosis due to other metabolic disease, psychoneurosis, paranoia or paranoid condition, and psychosis with psychopathic personality. Of the 109 cases discharged as improved, 3, or 2.80 %, were cases of psychosis with syphilitic meningo-encephalitis; 7, or 6.42 %, alcoholic psychosis; 13, or 11.93 %, psychosis with cerebral arteriosclerosis; 4, or 3.70 %, senile psychosis; 48, or 44.04 %, manic-depressive psychosis; 3, or 2.80 %, dementia praecox; 13, or 11.93 %, paranoia or paranoid condition; 8, or 7.34 %, psychosis with mental deficiency; 2, or 1.83 %, of each of the following: psychosis with other disturbance of circulation, involutional psychosis, and psychosis with organic changes of the nervous system; and 1, or .91 %, of each of the following: psychosis due to drugs, etc., psychosis with epilepsy, psychoneurosis, and psychosis with psychopathic personality. Of the 27 cases discharged as unimproved, 2, or 7.41 %, were cases of alcoholic psychosis; 10, or 37.03 %, psychosis with cerebral arteriosclerosis; 3, or 11.11 %, manic-depressive psychosis; 4, or 14.81 %, dementia praecox; 6, or 22.22 %, paranoia or paranoid condition, and 1, or 3.70 %, each of psychosis with syphilitic meningo-encephalitis and psychosis with epilepsy.

The following is a study of the entire hospital residence in all hospitals for mental diseases, exclusive of all time out on visit, of the cases discharged during the year: 10, or 4.65 %, were discharged after a residence of less than one month; 84, or 39.07 %, after a residence of from one to six months; 37, or 17.21 %, from six months to one year; 34, or 15.81 %, from one to two years; 9, or 4.18 %, from two to three years; 6, or 2.80 %, from three to four years; 16, or 7.44 %, from four to

five years; 11, or 5.11%, from five to ten years; 8, or 3.72%, ten years or over. The average duration of hospital residence was 1 year, 9 months, and 28 days.

Of the 310 deaths occurring during the year, 235, or 75.81%, represented cases dying at the age of sixty or over. In 128, or 41.29%, death occurred at the age of seventy or over. Of the 3,790 deaths occurring at the hospital during the fourteen-year period ending September 30, 1934, 2,617, or 69.05%, were cases dying at the age of sixty or over; and in 1,476, or 38.95%, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: tuberculosis of the respiratory system, 26, or 8.40%; cancer and other malignant tumors, 10, or 3.22%; cerebral hemorrhage, 15, or 4.84%; general paralysis of the insane, 9, or 2.90%; chronic endocarditis, 6, or 1.94%; diseases of the myocardium, 96, or 30.97%; arteriosclerosis, 24, or 7.74%; bronchopneumonia, 80, or 25.80%; lobar pneumonia, 9, or 2.90%; and nephritis, 5, or 1.61%.

The psychoses represented by deaths occurring in the hospital during the year were as follows: psychoses with syphilitic meningo-encephalitis, 13, or 4.13%; alcoholic psychoses, 10, or 3.22%; psychoses with cerebral arteriosclerosis, 162, or 52.26%; psychoses with convulsive disorders (epilepsy), 4, or 1.29%; senile psychoses, 41, or 13.22%; involutional psychoses, 7, or 2.26%; psychoses due to other metabolic diseases, etc., 4, or 1.29%; psychoses with organic changes of the nervous system, 5, or 1.61%; manic-depressive psychoses, 24, or 7.74%; dementia praecox, 23, or 7.42%; paranoia and paranoid conditions, 8, or 2.58%; psychoses with mental deficiency, 3, or .97%; and each of the following, 1, or .32%: psychosis with other forms of syphilis, psychosis due to drugs, etc., traumatic psychosis, psychosis with other disturbances of circulation, psychoneurosis, and psychosis with psychopathic personality. Of the 162 cases of psychosis with cerebral arteriosclerosis dying in the hospital during the year, death was due in 3, or 1.85%, to tuberculosis of the respiratory system; in 3, or 1.85%, to cancer and other malignant tumors; in 10, or 6.17%, to cerebral hemorrhage; in 69, or 42.59%, to diseases of the myocardium; in 13, or 8.02%, to arteriosclerosis; in 50, or 30.86%, to bronchopneumonia; and in 3, or 1.85%, to lobar pneumonia. Of the 41 cases of senile psychosis, death was due in 12, or 29.27%, to diseases of the myocardium; in 7, or 17.07%, to arteriosclerosis; and in 14, or 34.15%, to bronchopneumonia. Of the 24 cases of manic-depressive psychosis, death was due in 3, or 12.50%, to tuberculosis of the respiratory system; in 3, or 12.50%, to diseases of the myocardium; in 4, or 16.67%, to arteriosclerosis; and in 7, or 29.17%, to bronchopneumonia. Of the 23 cases of dementia praecox, death was due to tuberculosis of the respiratory system in 13, or 56.52%; to diseases of the myocardium in 5, or 21.74%; and to bronchopneumonia in 2, or 8.69%.

Of the 310 patients dying in the hospital during the year, the total duration of hospital residence was as follows: Less than one year, 180 or 58.06%; one to three years, 45, or 14.51%; three to five years, 19, or 6.13%; five to seven years, 11, or 3.55%; seven to nine years, 9, or 2.90%; nine to eleven years, 7, or 2.26%; eleven to fifteen years, 10, or 3.22%; fifteen to twenty years, 12, or 3.87%; and twenty years and over, 17, or 5.48%. The psychoses showing the longest hospital residence were as follows: alcoholic psychoses, one each over 17, 18, and 24 years, and two over 20 years; manic-depressive psychoses, two over 25 years and one over 45 years; dementia praecox, two each over 16 and 18 years, and one each over 17, 20, 21, 22, 23, 26, 27, 28, 34, 42, and 44 years; paranoia and paranoid conditions, one over 16 and one over 17 years; and psychoses with mental deficiency, one over 17 years, and one over 54 years.

The psychoses represented by the 2,298 patients in the hospital on September 30, 1934, were as follows: psychoses with syphilitic meningo-encephalitis, 66, or 2.87%; psychoses with other forms of syphilis, 10, or .44%; psychosis with epidemic encephalitis, 1, or .04%; psychoses with other infectious diseases, 3, or .13%; alcoholic psychoses, 161, or 7.01%; psychoses due to drugs, etc., 3, or .13%; traumatic psychoses, 9, or .39%; psychoses with cerebral arteriosclerosis, 207, or 9.01%; psychoses with other disturbances of circulation, 3, or .13%; psychoses with convulsive disorders (epilepsy), 34, or 1.48%; senile psychoses, 95, or 4.13%; involutional psychoses, 41, or 1.78%; psychoses due to other metabolic diseases, etc., 12, or .52%; psychoses due to new growth, none; psychoses with organic

changes of the nervous system, 19, or .83%; psychoneuroses, 14, or .61%; manic-depressive psychoses, 474, or 20.63%; dementia praecox, 738, or 32.11%; paranoia and paranoid conditions, 204, or 8.88%; psychoses with psychopathic personality, 23, or 1.00%; psychoses with mental deficiency, 146, or 6.35%; and undiagnosed psychoses, 16, or .69%. Nineteen, or .83%, were without psychosis.

The average duration of hospital residence, during the present admission, of all cases in the hospital on September 30, 1934, classified according to psychoses, was as follows: psychoses with syphilitic meningo-encephalitis, 4.51 years; psychoses with other forms of syphilis, 9.60 years; psychoses with epidemic encephalitis, 2.50 years; psychoses with other infectious diseases, 5.15 years; alcoholic psychoses, 9.28 years; psychoses due to drugs, etc., 1.82 years; traumatic psychoses, 10.45 years; psychoses with cerebral arteriosclerosis, 2.57 years; psychoses with other disturbances of circulation, 1.13 years; psychoses with convulsive disorders (epilepsy), 7.67 years; senile psychoses, 4.76 years; involutional psychoses, 6.85 years; psychoses due to other metabolic diseases, etc., 3.83 years; psychoses with organic changes of the nervous system, 6.86 years; psychoneuroses, 3.77 years; manic-depressive psychoses, 3.00 years; dementia praecox, 14.18 years; paranoia and paranoid conditions, 7.19 years; psychoses with psychopathic personality, 6.36 years; psychoses with mental deficiency, 8.85 years; and undiagnosed psychoses, 5.87 years. The average duration of hospital residence in the cases without psychosis was 4.31 years.

A study has been continued of the 6,368 consecutive admissions to this hospital for the ten-year period beginning October 1, 1920. All deaths and transfers in this group having been excluded, as they represent an uncompleted hospital residence, the total number of cases for analysis on October 1, 1934, at the expiration of four years after the last admission, is 3,549. Of this number, 20.37 per cent were discharged after a residence in the hospital of thirty days or less, 46.21 per cent, after six months or less, and 58.21 per cent, after one year or less. It is interesting to note that of the above 3,549 consecutive admissions 19.81 per cent remained in the hospital after a residence of five years or more, and 7.75 per cent, after a residence of more than ten years. The recovery rate shown in this group of cases is 19.36 per cent. Of the cases discharged as recovered, 74.96 per cent had a hospital residence here of one year or less.

An analysis of 5,418 consecutive admissions to this hospital for the fourteen-year period beginning October 1, 1920, and ending September 30, 1934, excluding deaths and transfers, shows a recovery rate of 16.37 per cent.

The following general information relating to the ward service should be of interest:

	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Percentage</i>
Average daily population . . . . .	917.82	1,313.34	2,231.16	100.00
In bed . . . . .	94.94	163.31	258.25	11.57
In restraint . . . . .	3.95	25.54	29.49	1.32
In seclusion . . . . .	9.18	14.05	24.01	1.08
Congregate dining room . . . . .	750.85	723.28	1,474.13	66.07
Eating in wards . . . . .	166.97	590.06	757.03	33.93
Fed by nurses . . . . .	14.26	92.99	107.25	4.81
Idle . . . . .	412.19	639.63	1,051.82	47.14
Employed . . . . .	505.63	673.71	1,179.34	52.86
Parole of grounds . . . . .	110.85	10.24	121.09	5.43
Out for exercise . . . . .	816.47	681.24	1,497.71	67.13
Noisy . . . . .	47.93	274.26	322.19	14.44
Violent . . . . .	.04	44.56	44.60	1.99
Destructive . . . . .	13.70	180.97	194.67	8.72
Soiled or wet . . . . .	87.79	201.44	289.23	12.96
Taking medicine . . . . .	54.90	48.40	103.30	4.63
Epileptic . . . . .	14.00	19.00	33.00	1.48
Tuberculous . . . . .	19.56	42.40	61.96	2.78
Infirm . . . . .	373.99	420.03	794.02	35.76

The percentages given above represent the average daily number for the entire year, that is: the average daily number of patients in bed was 258.25, or 11.57%

of the average daily number of patients in the wards of the hospital for the year, and the average daily number employed was 1,179.34, or 52.86% of the same average daily population. It will be noted that over 35% of the population for the year was of the infirmary type — a fact which should be taken into consideration when noting the number of patients out for exercise, and the percentage employed in useful occupations.

#### GENERAL HEALTH OF THE HOSPITAL

In the matter of the general health of the patients and employees the year has been an uneventful one. The death of the steward of the hospital, Mr. Arthur E. Gilman, on December 7, 1933, and the death of Dr. Herbert E. Herrin, Assistant Superintendent, on July 15, 1934, are referred to in another place in this report.

The usual minor injuries due to accidents have occurred among the patients during the year, and in a number of cases of aged and feeble patients fractures of bones have resulted from accidental falls. All of these occurrences were reported in the usual manner to the Board of Trustees and to the Department of Mental Diseases.

Accidents to employees have occurred in the usual number throughout the year, and have been reported in each instance to the Department of Industrial Accidents.

Examinations for Wassermann reaction have been made for us as in past years by the State Department of Public Health, as follows: blood serum, 354, cerebrospinal fluid, 179, also Hinton examinations of blood serum, 420, making a total of 774 blood serum examinations. During the year, 749 treatments for neurosyphilis were given to 42 patients — an average of 17.83 treatments per patient. A full account of this work is given elsewhere.

#### EMPLOYEES

On September 30, 1933, there were 525 persons employed in the hospital. During the year, 354 were appointed, 303 resigned, and 54 were discharged. Eight hundred and seventy-nine persons occupied 542 positions — a rotation of 1.62. The average daily number of employees during the year was 529.35, with 2.33% of vacancies, and the average daily number in the ward service was 305.57, with 3.3% of vacancies. The ratio of ward employees to patients was one to 7.31, and of all employees, one to 4.24. On September 30, 1934, 528 persons were employed in the hospital. As in the past year, high standards of qualifications, both personal and educational, were found to be the rule in the applicants for positions, especially in the nursing service.

The total number of visits to patients during the year was 79,132, the maximum number on one day being 1,085. It is quite obvious that considerable attention is required from the attendants and nurses for this large volume of visitors.

#### MEDICAL SERVICE

On April 2, 1934, Dr. Luther F. Grant, who was appointed assistant physician on July 1, 1932, resigned to enter private practice. To fill the vacancy thus created, Dr. Frank L. Fletcher was appointed assistant physician on April 3, 1934. Dr. Fletcher was born in Roxbury, Vt., and received his preliminary education in that State, graduating from Whitcomb High School in Bethel in 1919. He attended the University of Vermont for pre-medical work, and received his medical degree from the College of Medicine of that university in 1926. He then served as interne for one year at the Boston City Hospital, and for the following year as interne at the Children's Hospital in Boston. From 1928 to 1931 he served at the Louisville City Hospital as resident in pediatrics and full time instructor at the University of Louisville. Dr. Fletcher resigned on account of ill health on October 21, 1934. Upon the death of Dr. Herbert E. Herrin on July 15, 1934, Dr. Gerald F. Houser became Acting Assistant Superintendent, and on September 25, 1934, he was appointed Assistant Superintendent of the hospital. Dr. Houser received his preliminary education in Ontario, and after a six years course received his medical degree in 1926 from the University of Toronto. He was an assistant physician at the Danvers State Hospital for fifteen months, during six months of which he served as acting head of the male service. He was appointed assistant physician at the Boston State Hospital on November 15, 1927, and senior physician on December 20, 1928. When the Psychiatric Clinic was opened he was given charge of that service.



To fill the vacancy caused by the resignation of Dr. Fletcher, Dr. Benjamin Margulouis was appointed assistant physician on October 22, 1934. Dr. Margulouis received his early education in the public schools of St. Louis. He graduated from Washington University in 1923 with the degree of A.B., and received his medical degree from the St. Louis University Medical School in 1927. He served at the St. Louis City Hospital for four years, from 1927 to 1931, one year as junior interne, one year as senior interne, and two years as resident physician. He also served as resident physician at the Koch Hospital, St. Louis, from 1931 to 1932, and as assistant superintendent at the St. Louis City Sanitarium from 1932 to 1934. During the summer of 1934 he served as clinical assistant at the Taunton State Hospital. Upon the appointment of Dr. Houser as Assistant Superintendent, Dr. Purcell G. Schube was given charge of the Psychiatric Clinic, and Dr. Carl E. Trapp was transferred to that service. To fill the vacancy made by this rearrangement, Dr. Harold F. Norton was appointed assistant physician on October 22, 1934. Dr. Norton was born in Hyde Park, Mass. He attended Tufts College for one year and Boston College for one year, and received the degree of D. M. D. from the Tufts College Dental School in 1925. He graduated from Harvard Medical School in 1931, and served as an interne on a rotating service at the Beverly Hospital, Mass., for one year. He was an assistant physician at the Norfolk County Hospital, Braintree, Mass., and was appointed assistant physician at the Connecticut State Hospital, Middletown, Conn., in February, 1933, continuing there until his appointment to this institution. On October 28, 1934, Dr. Ella I. Duff, senior physician, who had been in charge of the female service at the Psychiatric Clinic since its opening, resigned. To fill this vacancy, Dr. Margaret C. McManamy, who was appointed assistant physician on September 17, 1931, was promoted to senior physician and given charge of Dr. Duff's former service at the Psychiatric Clinic. Dr. McManamy was born in Athol, Mass., and is a graduate of the Athol High School and Tufts College Pre-Medical School. She received her medical degree from Tufts College Medical School in 1930, and served as an interne for one year at the Worcester Memorial Hospital. During the summers of 1929 and 1930 she was clinical assistant at this hospital. The promotion of Dr. McManamy left a vacancy for assistant physician which was filled by the appointment of Dr. Florence A. Beaulieu on October 30, 1934. Dr. Beaulieu was born in Worcester, Mass., and is a graduate of the Classical High School of that city. She attended Tufts College Pre-Medical School and received her medical degree from Tufts College Medical School in 1931. She was interne for eighteen months on a rotating service at the Worcester Memorial Hospital, and relief physician at the Central New England and Crane Sanatoria at Rutland, Mass., for nine months. She served in the Out-Patient Departments of the Worcester Memorial and Worcester City Hospitals as graduate assistant for one year. She was clinical assistant at this hospital during the summer of 1930.

There has been no change in the list of consultants during the year. Frequent visits have been made to patients requiring surgical attention and the necessary major operations performed by Dr. Irving J. Walker and Dr. Grace E. Rochford. Dr. William E. Preble and Dr. Albert Evans, internists, have responded to calls when their services were needed, and Dr. Myerson, consulting neurologist, has examined several patients for us. Dr. Cummins has been consulted regarding treatment of skin conditions requiring attention. Whenever any contagious disease has been suspected, Dr. Edwin H. Place has been consulted. The routine examinations of new admissions have been made in the eye clinic and the ear, nose, and throat clinic, and the necessary treatments carried out. The former has continued in charge of Dr. Paul A. Chandler, with 714 patients examined, and the latter in charge of Dr. Donald H. Macdonald, with 647 patients examined.

The following articles have been published during the year by members of the hospital staff.

"A Note on a 'Proteose-like' Substance in Spinal Fluid," by Dr. Purcell G. Schube and Dr. Richard C. Whitehead. *Am. Jour. of Psychiatry*, Vol. 13, No. 5, March, 1934.

"A Study of the Total Protein of the Cerebrospinal Fluid in Uncomplicated and Untreated Neurosyphilis," by Dr. Purcell G. Schube. *Am. Jour. of Psychiatry*, Vol. 13, No. 5, March, 1934.

"*The Use of Autogenous Urinary 'Proteose' in an Allergic Condition*," by Dr. Purcell G. Schube. N. E. Jour. of Medicine, Vol. 210, No. 13, March 29, 1934.

"*The Prevention of Reactions Due to Lumbar Spinal Puncture*," by Dr. Purcell G. Schube and Dr. Frederick LeDrew. N. E. Jour. of Medicine, Vol. 211, No. 12, September 20, 1934.

"*The Physical Dynamics of Encephalography*," by Dr. Purcell G. Schube. Jour. of Nerv. and Ment. Dis., Vol. 80, No. 3, September, 1934.

"*The Effect of Dinitrophenol (1-2-4) on Blood Cholesterol in Man*," by Dr. Luther F. Grant and Dr. Purcell G. Schube. Jour. of Lab. and Clin. Med., Vol. 20, October, 1934.

During October and November, five weekly clinics in psychiatry were given to the third-year students from the Boston University School of Medicine by Drs. Herrin, Houser, and Osgood. On Nov. 9, 1933, a clinic in psychiatry was given by Dr. LeDrew to the fourth-year students of the Middlesex College of Medicine and Surgery. The class in social pathology under Prof. Havice at Northeastern University made the usual visit to the hospital during the winter and information relating to the social aspects of psychiatry was given to them by a member of the medical staff. On March 7, Dr. Houser and Dr. Garrick, a neurologist from the Boston University School of Medicine, gave a clinic in neurology to members of the first-year class from that school, to supplement instruction in neurology with practical demonstrations. During April and May, six clinics in psychiatry were given to the third-year students from the Tufts College Medical School by Dr. Roy D. Halloran and Drs. Herrin, Houser, and Osgood. On December 28, 1933, Dr. LeDrew conducted a clinic in psychiatry for nurses from the Goddard Hospital. Dr. Osgood gave a clinic in psychiatry to a group of nurses from the Massachusetts Memorial Hospitals on March 1, 1934, and on March 15 Dr. Houser gave the first of a series of three clinics in psychiatry to nurses from the Cambridge Hospital. On September 13, Dr. Houser lectured on the Psychiatric Clinic, its construction, aims, and administration, to a group of post graduate nurses from the McLean Hospital.

During the school year, two fourth-year students from the Boston University School of Medicine and two, occasionally three, fourth-year students from the Tufts College Medical School have spent a month each at this hospital as internes. Four clinical assistants were added to the staff during the summer months, as usual.

Throughout the year, except during the summer months, regular staff meetings have been held as usual. Two of these are held weekly at the Psychiatric Clinic, and one weekly at the East Group and at the West Group, with one meeting a month at the pathological laboratory. At these meetings an effort is made to present all new admissions and all cases about to leave the hospital on visit or to be discharged.

The venereal clinic was conducted by Dr. Luther F. Grant until April 1, 1934, when, upon Dr. Grant's resignation, it was taken over by Dr. Frederick LeDrew, who has been assisted by Dr. Winthrop B. Osgood and Dr. Frank L. Fletcher. Student internes from the Boston University School of Medicine and from Tufts College Medical School were instructed in syphilotherapy, and profited by participation in the treatment and examination of the patients. During the first four weeks, the treatment with thio-bismol was continued from the preceding year, with sixty-five intramuscular injections given to eighteen patients. These patients showed no further improvement. Four hundred and thirteen intravenous injections of tryparsamide were given to twenty-one patients — fifteen men and six women — followed by three hundred and nineteen intravenous injections of neoarsphenamine given to twenty-six patients — eighteen men and eight women. A diagnosis of psychosis with other forms of syphilis of the central nervous system, meningo-vascular type, was made in five patients; one of these improved, and four remained unchanged. Three cases of vascular syphilis treated remained unchanged, showing no active signs of syphilis. Of the thirty-two cases of psychosis with syphilitic meningo-encephalitis treated, eleven showed improvement, eleven remained unchanged, and ten became worse, five of the latter dying. Three of this group were discharged — two improved and one with no demonstrable signs of a psychosis. Three more were taken home on trial visit, somewhat improved.

## RESEARCH DEPARTMENT

The personnel of the research laboratory under the direction of the Department of Mental Diseases has remained unchanged throughout the year. Dr. Abraham Myerson has continued to have supervision of the work, and with him are associated Dr. William Dameshek and Dr. Julius Loman. The biochemical and general technical work was done by Miss Caroline Stephenson and Mr. David Goldman.

During the year, the laboratory has been occupied chiefly with the question of the changes that take place within the brain during alterations in posture. An extensive series of studies to discover what changes take place under the influence of drugs has already been carried on. The later studies thus tend to complete the knowledge of changes in the cranial cavity under almost all conditions. The studies this year have been remarkably conclusive. Owing to the collaboration of Dr. F. A. Gibbs of the Harvard Medical School, it has been possible to add speed of blood flow through the brain, a very necessary set of data. It appears, therefore, that changes in posture are associated, first, with change in the rate of the flow of blood in the brain, the flow being faster in the recumbent and slower in the upright positions. As the blood flow becomes slower, the amount of oxygen taken up lessens, and with this there is an accompanying series of changes in the pressures within the skull, that is: the pressures become lessened as the flow becomes slower. This is a very brief summarization of the situation embodying a very difficult piece of research, and one which is believed to be fundamental to the understanding of brain conditions. In addition, a series of studies has been carried on concerning the effect of drugs on the white cells. The effect of pyramidon and allonal is directly to reduce the number of white cells in the blood, and these drugs should be used, therefore, with great caution. A third series of researches has been carried out on staining reactions of the central nervous system and the blood. We are not ready at the present time to make a definite report on this important piece of work, but believe that we have been able to add definitely to the techniques used in the study of both these sets of tissues.

The following papers were published during the year:

"*The Effects of Sodium Amytal on the Metabolism*," by Dr. W. Dameshek, Dr. A. Myerson, and Dr. J. Loman. *Am. Jour. of Psychiatry*, July, 1934.

"*Primary Hypochronic Anemia (Hypoferrism) III. Treatment of Hypochronic Anemia with Various Iron Compounds, including ferrous chloride and ferrous glutamate*," by Dr. W. Dameshek. *W. Va. M. J.*, May, 1934.

"*Assay of Commercial Extracts of Liver for Parenteral Use*," by Dr. W. Dameshek and Dr. W. B. Castle. *Jour. A. M. A.*, September, 1934.

The following papers have been written and will be published either late this year or early next year:

"*Direct Intra-Arterial Blood Pressure Readings in Man, II. The Effect of Alterations in Posture upon the Carotid, Brachial and Femoral Pressures*," by Dr. J. Loman, Dr. W. Dameshek, and Dr. A. Myerson.

"*Direct Intra-Arterial Blood Pressure Readings in Man, III. The Effect of Postural Alterations upon the Carotid Pressure. 1. Reaction in Arteriosclerosis. 2. Reaction during syncope. 3. Reaction to vasodilator drugs*." Dr. J. Loman, Dr. W. Dameshek, and Dr. A. Myerson.

"*The Effect of Postural Alterations on the Cerebrospinal Fluid Pressure*," by Dr. J. Loman, Dr. A. Myerson, and D. Goldman, A.B.

"*The Effect of Postural Changes upon the Blood Flow in the Internal Jugular Vein*," by Dr. F. A. Gibbs.

"*Studies in Agranulocytosis V. The Etiology of Agranulocytosis, with especial reference to the effect of drugs. (Clinical Experimental data on effect of various drugs on the leukocyte count.)*" By Dr. W. Dameshek.

## SOCIAL SERVICE DEPARTMENT

The social service department has retained the same personnel in its regular staff as during the preceding year, and the work has continued under the direction of Miss Florence E. Armstrong, head social worker. The staff consists of five paid workers, including one psychiatric social worker and three assistant social workers. Three students and one volunteer worker have joined the group. They are Miss Helen Hollander, Miss Florence Smith, Miss Lillian Segal, and Miss Reva Hersey.

The first three are graduates respectively of Boston University, Ohio University, and the University of Maine. They are enrolled under the general direction of the Department of Mental Diseases in the State House. Both students of last year have secured positions promptly, one in Baltimore with the Jewish Family Agency, where her psychiatric training proves valuable to her, and the other in Augusta, Maine, under the E.R.A. Both visit this hospital when on holiday and communicate with members of the department by letter.

During the past year, and since the Psychiatric Clinic was opened, a daily report has been received by the head social worker, showing each new admission, each release on visit, discharge, and transfer that occurs in the population of the hospital in this unit. The result is a close relationship between the work of the Clinic and this department from the social service point of view. However, this is only a beginning. The securing of diagnostic material from the patient's background in the home and the many community agencies, such as schools, places of employment, courts, other hospitals and physicians, must throw important light upon the understanding of a case. Such understanding cannot be perfected unless the social worker and psychiatrist work closely together and until each comprehends the other's point of view and contribution. Social service no longer concerns itself primarily with the personal attention to patients which used to characterize it. It is allied with all the hospital resources of physicians' studies and laboratory findings to search for the causes of mental disease and to preserve the mental health that is finally regained during the period of hospital residence. Since the Psychiatric Clinic of this hospital stands particularly for these efforts, our interest has been logically focussed at this point. The importance of other service is not overlooked, however. During the year we have been able, in many cases, to locate relatives or interested friends to visit patients and to assume responsibility in the event of death. This illustrates a practical side of social service that might well be elaborated. Not only are hospital expenses reduced by this persistent work of the department of social service but there is no doubt that careful supervision of cases on visit has resulted many times in keeping patients outside who might needlessly and carelessly have been returned, thereby charging the State with their care again and with the expense of caring for their children when the wage-earner or the home-maker is removed from the family group.

The following table shows the movement of patients under supervision and the social service work done during the year:

	<i>Males</i>	<i>Females</i>	<i>Total</i>
In family care September 30, 1933 . . . . .	—	11	11
On visit September 30, 1933 . . . . .	100	135	235
On escape September 30, 1933 . . . . .	1	—	1
Dismissed to family care during the year . . . . .	—	15	15
Went out on visit during the year . . . . .	963	275	1,238
Escape during the year . . . . .	9	—	9
Admitted from family care . . . . .	—	13	13
Admitted from visit . . . . .	885	174	1,059
Admitted from escape . . . . .	6	—	6
Admitted from family care and discharged . . . . .	—	3	3
Admitted from visit and discharged . . . . .	76	120	196
Admitted from escape and discharged . . . . .	1	—	1
In family care September 30, 1934 . . . . .	—	10	10
On visit September 30, 1934 . . . . .	102	116	218
On escape September 30, 1934 . . . . .	3	—	3
Total number of cases considered . . . . .	430	596	1,026
New cases . . . . .	393	411	804
Renewed cases within the year . . . . .	18	58	76
Renewed cases from previous years . . . . .	15	74	89
Continued cases from previous year . . . . .	14	53	67
Cases closed during the year . . . . .	398	498	896
Cases continued to following year . . . . .	32	98	130

## PATHOLOGICAL LABORATORY

The work of the pathological laboratory has continued during the year under the direction of Dr. Naomi Raskin, pathologist, with the assistance of one laboratory technician and one volunteer worker. The following is a summary of the routine work of the pathological laboratory for the year: autopsies, 151; bacteriological examinations, 211; blood examinations — red counts, 166, white counts, 173, differential counts, 171, hemoglobin estimations, 169; blood sugar determinations, 42; fluid from abdomen, 1; fluid from chest, 5; gastric contents, 3; spinal fluid examinations, 165; spinal fluid sugar determination, 1; sputum examinations, 110; stool examinations, 14; tissue sections — celloidin, 75, frozen, 137, paraffin, 1,576, and surgical, 140; urinalyses, 1,830; and Van den Bergh tests, 2.

The number of deaths during the year was 322, of which 151 came to autopsy, making the autopsy percentage 47.00 for the year.

The psychoses represented in cases coming to autopsy were as follows: senile psychoses, 20; psychoses with cerebral arteriosclerosis, 86; psychoses with syphilitic meningo-encephalitis, 9; psychosis with brain tumor, 1; psychosis with multiple sclerosis, 1; alcoholic psychoses, 7; psychoses with other somatic diseases, 3; manic-depressive psychoses, 10; involution melancholia, 3; dementia praecox, 6; paranoia and paranoid conditions, 3; psychoneuroses, 1; and epileptic psychosis, 1.

The following were the causes of death: asphyxiation by vomitus, accidental, 1; carcinoma of stomach, bronchopneumonia, and edema of lungs, 1; carcinoma of stomach with metastases to liver, and bronchopneumonia, 1; cardiovascular renal diseases, 1; chronic endocarditis, chronic myocarditis, and pyonephritis, 1; chronic endocarditis and gangrene of right lung, 1; chronic endocarditis, mitral regurgitation, chronic myocarditis, and pleurisy with effusion, 1; chronic interstitial pneumonia and chronic myocarditis, 1; chronic myocarditis, pulmonary congestion, and bronchopneumonia, 1; chronic nephritis and chronic myocarditis, 1; epilepsy and chronic myocarditis, 1; general arteriosclerosis, 4; general arteriosclerosis with the following conditions: abscess of lung 1, acute hemorrhagic pancreatitis 1, acute myocarditis and bronchopneumonia 1, acute vegetative endocarditis 2, aneurysm of arch of aorta and carcinoma of sigmoid flexure 1, bronchopneumonia 16, bronchopneumonia and gangrene of right lung 1, bronchopneumonia and pulmonary abscess 1, carcinoma of cervical glands and bronchopneumonia 1, carcinoma of face 1, carcinoma of rectum 1, carcinoma of stomach and bronchopneumonia 1, cardiovascular diseases — decompensation — 1, cerebral hemorrhage 4, cerebral hemorrhage and bronchopneumonia 1, cerebral hemorrhage and carcinoma uteri 1, cerebral hemorrhage and coronary sclerosis and fibrous myocarditis 1, cerebral hemorrhage and pulmonary edema 1, cerebral softening and bronchopneumonia 1, cerebral thrombosis and bronchopneumonia 1, chronic endocarditis 2, chronic endocarditis and pleurisy with effusion 1, chronic endocarditis and thrombus of abdominal aorta 1, chronic endocarditis, chronic myocarditis and bronchopneumonia 1, chronic myocarditis 16, chronic myocarditis with acute cholecystitis 1, with abscess of prostate 1, with bronchopneumonia 15, with cerebral atrophy 1, with chronic nephritis 1, with gangrene of left arm 1, with pulmonary congestion 2, with pulmonary edema 1, with tubercular coxitis, left, 1, with volvulus of sigmoid colon 1, chronic nephritis and chronic endocarditis, 1; coronary sclerosis, 3; coronary sclerosis and hypertrophy of prostate 1, dislocation of fifth cervical vertebra 1, erysipelas of face and empyema, 1; fibrous myocarditis, coronary sclerosis, and bronchopneumonia 1, fractured femur 3, fractured right humerus (healed) and bronchopneumonia 1, intestinal obstruction and chronic myocarditis 1, meningitis and bronchopneumonia 1, pleurisy with effusion and general septicemia 1, pulmonary tuberculosis 2, strangulated left inguinal hernia 1, and thrombosis of right internal carotid 1, general paralysis 2, general paralysis with aortic stenosis and acute pyelitis 1, with bronchopneumonia 4, with coronary thrombosis 1, and with syphilitic aortitis and pulmonary congestion 1, glioma of brain and bronchopneumonia 1, inanition and bronchopneumonia 1, lobar pneumonia 3, lobar pneumonia, acute purulent meningitis (pneumococcus) and acute endocarditis 1, lobar pneumonia and coronary sclerosis 1, lobar pneumonia and hemorrhagic pachymeningitis 1, lobar pneumonia, otitis media, and mastoiditis 1, multiple sclerosis and terminal pneumonia, 1; perforated gastric ulcer and peritonitis, 1;

pernicious anemia, 1; pulmonary abscess with septicemia, vegetative endocarditis, acute myocarditis, and pericarditis, 1; thrombosis of the right common iliac vein, pulmonary thrombosis, and terminal pneumonia, 1; tuberculosis of both kidneys and tuberculous peritonitis, 1; tuberculosis of lungs, 6; tuberculosis of lungs and chronic hemorrhagic pachymeningitis, 1; and tuberculosis of lungs and tuberculous pneumonia, 1.

#### DENTISTRY

The dental work of the hospital has been carried on throughout the year by the resident dentist, Dr. George S. Rileigh, with the aid of one dental assistant. Each new patient is thoroughly examined within a few days after admission, the various items requiring attention are indicated on a chart, and a complete record is made of his condition. The use of ether and nitrous oxide as general anesthetics has been continued, as in past years, in cases where a local anesthetic has been contraindicated. The use of gauze drains, curetting of diseased tooth sockets, and suturing have been the regular procedure in the surgical extraction of teeth. As far as possible, an effort is made in this department to restore the mouth to a normal healthy condition. The following is a summary of the work accomplished during the year: examinations, 1,991; extractions, 1,770; fillings, 523; prophylaxis, 923; restorations, 717; and treatments, 1,358. The number of patients treated was 2,843.

#### HYDROTHERAPY

The work of the hydrotherapy department has continued during the year under the direction of Miss Mary F. Bresnahan, R. N., with Mrs. Helena B. Hubbard supervising the work in the East Group, and Mr. Eugene N. Madden, R. N., in charge of the work on the male services, succeeded on May 30 by Mr. Frederick Baril, a trained hydrotherapist. During the year, 10,488 continuous baths were given to 191 different patients, — an average of 54.87 per patient, and a daily average of 28.73. There were 15,732 wet sheet packs given to 194 different patients, — an average of 81.09 per patient, and a daily average of 43.10. Tonic treatments to the number of 10,554 were given to 119 different patients, — an average of 89.00 per patient, and a daily average of 29.00. These treatments were as follows: salt glows, 614; Sitz baths, 695; electric light baths, 102; hot and cold to spine, 245; fomentations to lumbar region, 105; saline baths, 323; foot baths, as preparatory treatments, 254; tub shampoos, 843, hair shampoos, 396; vapor baths, 46; rain douches, 141; pail douches, 130; needle sprays, 3,182; fan douches, 2,529; and jet douches, 949. There were 892 colonic irrigations and enemata given to 47 different patients, — an average of 19.00 per patient, and a daily average of 2.44. Twenty-three massotherapy treatments were given, to one patient. The usual instruction was given, with 71 lessons during the year.

#### PHYSIOTHERAPY

The work of the physiotherapy and X-ray departments has been done during the year by Miss Gertrude E. Gray, a trained physiotherapist and X-ray technician. This is all done in the Psychiatric Clinic, and has been quite active since its establishment. Physiotherapy has proved to be of value in various conditions. Ultra-violet ray has been of use in some skin diseases, particularly acne, and has been given with moderate success in psoriasis and scabies. Diathermy has been used here as a therapeutic measure in neurosyphilitic diseases, and has unquestionably given relief to painful neuritic and arthritic states. A few obstinate cases of constipation have responded to the application of sinusoidal current. Generally speaking, the good results of electrotherapy have been largely physical, although improvement in mental states has been noted, as a secondary effect. Certain psychoneurotic patients have shown improvement, chiefly because they were able to observe that something was being done, and this in a somewhat spectacular fashion. While the ultraviolet ray was used for general tonic effect in many cases, its value is debatable. During the year, 2,724 treatments were given, 1,924 to male patients and 800 to female patients. The total number of different patients treated was 121, — 83 male and 38 female. The treatments were as follows: ultraviolet ray, 1,751; infra red ray, 2; diathermy, 391; sinusoidal, 444, and galvanic, 136. The total number of X-ray examinations was 272, and the total number of fluoroscopic examinations, 82.

## SCHOOL CLINIC

During the school year 1933-1934, the School Clinic examined 452 pupils in the public schools of Somerville and Everett. The city of Malden, which is assigned to our territory, does not accept our services. An enumeration recently published by the Division of Mental Deficiency, of the total number of examinations made by the various State School Clinics from 1926 to 1933 places the Boston State Hospital clinic as fourth, with 3,163 examinations. It should be remembered in this connection, however, that this clinic is on a half-time status. The diagnoses of intelligence for the pupils examined are as follows: superior, 5; normal, 66, dull normal, 121; borderline, 152; defective, 78; and deferred, 30. The recommendations for school placements were as follows: special class, 130, institutional, 18; others, 304. The recommendations for medical attention were as follows: chorea, 2; epilepsy, 3; endocrine conditions, 3; neurological, 3; speech, 3; luetic 3; tuberculosis (suspect), 5; general medical attention, 14; hearing defect, 25; posture, 33; cardiac, 55; visual defects, 80; dental, 110; nose and throat, 121; and nutrition, 140. Reasons for examination were as follows: social problem, 8; school problem, 13; behavior problem, 19; personality difficulty, 26; physical problem, 29; retardation, 320; others, 37.

The work is in charge of Dr. Alberta S. Guibord, assisted by Edith B. James, B.A., psychometrist. The social service is conducted by the regular social service staff of the hospital under the direction of Miss Florence E. Armstrong. The school achievement tests were made by teachers specially trained, Mrs. Ruth B. Morse of Everett and Miss Winifred M. Ford of Somerville. This year the School Clinic was substantially aided by Mrs. Morse, who, in addition to her regular educational testing, performed a great number of psychometric tests, and Miss Madeline Goodhue, A.B., Radcliffe College, who contributed her services in performing 60 psychometric tests in the Somerville clinic. We extend our thanks for this material assistance to the young women named, and to the school departments. Without this extra help our work would have been substantially curtailed, since our regular psychometrist is too overloaded with hospital and Juvenile Court examinations to devote adequate time to the work of the School Clinic. This over-demand on the services of the psychometrist was stressed in our report of last year. It is repeated here to emphasize the need of a second psychometrist.

We wish to express appreciation of Dr. Neil A. Dayton's 1933 Report of the Division of Mental Deficiency. A clearcut presentation of the many problems met in the field, it stresses particularly the actual and potential value of the School Clinic to the schools and to the community, — a function which, of course, is its first obligation. One other use not specifically mentioned, but undoubtedly sensed and implied, is its importance for psychiatric research, the possibility afforded of utilizing the data accumulated to trace the outcome of suspicious mental symptoms, personality deviations, and the like, from their early beginnings to their later developments. In other words, do the children who are or might be labelled pre-psychotic actually develop psychoses in later life? Do they stay as they are? Do they get over their mental abnormalities? Follow-up studies after a period of years should throw light on the relation of abnormal mental symptoms in early childhood to later mental states. Many cases of this nature are in our files awaiting such follow-up study when time permits.

## TRAINING SCHOOL FOR NURSES

As in several years past, Miss Mary Alice McMahon, R.N., Principal of the School of Nursing, has had charge of the nursing service of the hospital. The training school for psychiatric nurses graduated twelve students in 1934. Since the beginning of this school, in October, 1930, there have been thirty graduates, twenty-six of whom are still in the employ of this hospital. The enrollment for the fifth year includes fifty-six students in the junior class and nineteen in the senior class. All of these students are High School graduates. The practical work includes instruction and nursing care, in the wards, of patients suffering from the various types of mental disease. Special attention is given to the nursing care of patients showing symptoms of excitement, depression, confusion, suicidal and homicidal tendencies and epilepsy. Each student receives special instruction in medical and

surgical nursing, and practical work with acute and chronic bed cases. Practical instruction is also given in hydrotherapy, physiotherapy, the preparation and serving of food, the preparation of surgical dressings, and assisting at operations, etc. Lectures, recitations, and demonstrations are held according to schedule. When the term of two years is completed, the pupils are thoroughly qualified, and they receive, if their conduct and examinations have been satisfactory, a certificate to that effect. The graduates of this course are added to the list of eligibles for promotion in the hospitals.

The systematic instruction of attendant nurses, both male and female, not enrolled in other training school classes, is being conducted along the lines prescribed by the Committee on Training Schools, representing the Department of Mental Diseases, and 230 have received such instruction during the year. We have now in the ward service seven graduates of the Boston State Hospital Training School.

#### OCCUPATIONS AND INDUSTRIES

During the year, Miss Ethel M. Anderson, head occupational therapist, has continued to direct the work of the occupational therapy department, with the assistance of ten occupational therapists. One of this number, Miss Eleanor M. Philbrick, who carried on the physical education programs in the wards, has been absent for five months on account of illness. The greatest number of patients receiving occupational therapy for any one day was 513, the number for one month being 710. The female patients of West B Building have assembled in the basement shop five mornings a week throughout the year for the making of rugs, hooked and braided; runners and aprons hemmed and embroidered, and other kinds of needlework, knitting and crocheting. West A patients have been cared for in a similar manner on the wards daily, as have also the female patients in the East Group, a total of twenty-six female wards being on regular schedule in these groups. From ten different male wards the men of the West Group attend the shops or are employed in the ward classes, making baskets, weaving rugs and runners, making and repairing small articles such as end tables, book cases, step ladders, etc., knotting, painting, and hooking. During the summer, the male patients enjoyed playing baseball, attention being given not only to a very good team, but to a secondary group which produced less promising baseball but definitely gratifying reactions from individual players. With the coming of less pleasant weather, a men's chorus has been undertaken, resulting, again, in a questionable amount of real music but showing gratifying team work. In the near future the female patients are also to be included in this weekly gathering, resulting in a mixed chorus of voices.

Realizing that presumably the patients at the Psychiatric Clinic are the best "prospects" for recovery, considerable time is being spent on them. Under careful supervision the women have strolled about the grounds, played games or sat under the trees with their work; in both the male and female classrooms the most attractive of the materials and projects have been set before them; special books have been borrowed to meet individual desires. Articles of little value but of much interest have been made in the shops, purposeful activity has been the aim.

Books have been loaned from the patients' library on every ward practicable throughout the hospital, and magazines furnished on some of the more disturbed wards. The patients have enjoyed filling candy bags at Christmas, packing peanuts for Field Day, and making jack-o-lanterns for the Hallowe'en dance. When the need has arisen, special work has been done by the therapists — a patient taken on a particular errand off the grounds, a child taken for outdoor exercise, to the relief of all on the ward, a wheel-chair patient given an afternoon in the sun, materials borrowed from outside sources for a really talented patient, and so on.

The estimated value of the articles produced during the year is \$1,640.60, and that of the mending \$39.50, a total of \$1,680.10.

Mrs. Madge B. Richardson, who has had charge of the work of the industrial room for women for several years, resigned on October 20, 1934, since which time the work has been directed by Miss Elizabeth M. O'Connor. As in past years, the patients are employed in basketry, rug making, lace making, embroidery, knitting, crocheting, sewing, and mending. The estimated value of the articles produced in this department during the year is \$627.20, and in the sewing room \$3,552.30 (a total of \$4,179.50) exclusive of mending, the value of which is estimated at \$2,606.43,



making a total of \$6,785.93. The industrial work for the men has been directed during the year by Mr. James F. Hurley, as in several years past. This consists of shoe repairing and various other repair work, the manufacture of several kinds of brushes, brooms, coat hangers, hats, mattresses, pillows, and numerous other articles, and is carried on entirely in the basement of the B Building in the West Group. The estimated value of articles produced during the year is \$3,284.93, and of renovations and repairs, \$2,699.20, a total of \$5,984.13. The estimated value of all articles produced during the year is \$9,105.03, and of renovations and repairs, \$5,345.13, making a total of \$14,450.16.

#### OCCUPATIONAL THERAPY CENTER AT CITY MILLS, MASSACHUSETTS

The work of the Occupational Therapy Center at City Mills has been carried on during the past year under the general supervision of the head social worker of the Boston State Hospital. The boarding care of the patients selected for this Center has continued to be the charge of Mrs. Nellie Gay. Dr. Pease has had special medical and psychiatric oversight, and has visited the Center once a month. Until October, 1934, the work in occupational therapy was directed by Mrs. Barbara Waterman, who was followed by Miss Isabel White, a graduate of Cornell University in June, 1934. Miss White has had experience in directing the work of groups interested in weaving and spinning, and in designing and making fine handiwork. The year carries its usual record of patients admitted, studied, placed out successfully, or in some cases returned to the hospital. The average number in residence has been about nine, the maximum being only ten. With the appointment of Miss White an acknowledgment has been made of the growing social character of the work in this valuable Center. The occupational therapist's work hitherto has been focussed entirely upon the patients in residence, and her interest has terminated automatically with their departure. However, it has seemed apparent that the benefits derived from these new interests, which have come somewhat as a revelation of creative possibilities to women who have known very drab existences, might well be extended to their homes. Therefore, the occupational therapist now has a new duty, to continue this stimulation to the patients after they leave the Center. To her ordinary functions within the Center she has added some interesting new ones, such as group singing — not strikingly musical in its perfection, but it raises morale and gives a special flavor to the patients' lives together; calisthenics for some who suffer from poor posture; reading aloud by one member of the group while the rest sew (this is in high favor); and work along simple dramatic lines, to end in a "play." The Center serves in a small way as a laboratory where more accurate diagnostic material is secured. There is no doubt that some patients, exposed to the environment of a home after a period of hospital residence, show reactions different from those demonstrated on the hospital wards. Monthly reports on the attitudes are incorporated in the hospital records and shed new light upon some of the dark places in diagnostic understanding. While these women are still sheltered, they enjoy a degree of freedom impossible in the hospital regime and engage in simple, homely tasks which establish normal reactions. Daily living under vigilant eyes carries them step by step toward the goal of all efforts in psychiatry — a reestablishment in their communities, performing the tasks of the everyday work like their more fortunate sisters. Sometimes patients who have been tried on visit without supervision from the Social Service Department, and who have made miserable failures because of the complex social situations in which they flounder, have been brought to the Center, away from all the irritations and misunderstandings of their home lives. The separation has a wholesome effect, relieving the dangerous tension for the patient, and the strain upon the family, while time is allowed to study the difficulty, and a social worker undertakes to create better understanding among the members of the family or to arrange a more reasonable scheme of life for the patient. In such cases, the place has been a real blessing, as it has saved a situation which was on the verge of ruin. Less money has been taken in through the sale of articles which the patients make than formerly. This is chiefly due to the fact that in these years people are spending their money more warily, and the day of the church sale and the favorite charity bazaar brings in much smaller profits. However, since this is not the main purpose of the work,

its passing is incidental and not especially significant in the continuance of the work accomplished by the Center. In the course of the year, approximately \$150 has been taken in. This does not add to the central fund, as part of it repays the cost of materials purchased and the rest is allowed the patients for small purchases. The fund which has gradually accumulated from various sources, but principally from the State, has been drawn upon for services to the patients, such as dentistry and mouth treatments in the case of a young girl without family or resources, which benefitted her greatly; clothing, in similar instances; glasses; holiday festivities; and, most welcome of all, even if not so practical, a very good radio.

#### AGRICULTURAL ACTIVITIES FOR THE YEAR

The work of the farm has continued throughout the year under the direction of Mr. Ralph B. Littlefield. A total of 114.38 acres was under cultivation. This consisted of 34¾ acres devoted to gardening and 79½ acres of meadowland. The estimated value of farm products for the year was \$10,999.97.

#### FINANCIAL STATEMENT

The maintenance appropriation for the year was \$813,585.00, with \$15,425.41 brought forward from the preceding year, making a total of \$829,010.41. The expenditures of the hospital for the year were as follows:

	<i>Amount Expended</i>	<i>Per Capita</i>	<i>Percentage of Total</i>
Personal services . . . . .	\$425,819.13	\$188.381	54.972
Travel, transportation and office expenses . . . . .	6,525.75	2.887	.843
Food . . . . .	153,939.47	68.102	19.873
Clothing and materials . . . . .	20,680.25	9.149	2.669
Religious instruction . . . . .	1,919.74	.849	.248
Furnishings and household supplies . . . . .	29,621.21	13.104	3.824
Medical and general care . . . . .	19,578.93	8.662	2.528
Heat and other plant operation . . . . .	78,620.35	34.782	10.150
Farm . . . . .	4,465.93	1.976	.576
Garage and grounds . . . . .	11,502.57	5.089	1.485
Repairs, ordinary . . . . .	12,817.68	5.671	1.655
Repairs and renewals . . . . .	9,118.27	4.034	1.177
Total . . . . .	\$774,609.28	\$342.685	100.000

Based on the average daily population of the hospital, 2,260.41, the per capita cost of maintenance for the year was \$342.685, or \$6.590 per week. The per capita cost for 1933 was \$334.598, or \$6.4346 per week.

#### GENERAL OPERATIONS FOR THE YEAR

The Superintendent, who was granted an indefinite leave of absence for that purpose by the Board of Trustees in January, 1933, and served as Commissioner of Mental Diseases at the urgent request of the Governor of the Commonwealth from January 11, 1933, to June 19, 1934, returned to the hospital and resumed his duties on June 20, 1934.

Mr. Arthur E. Gilman, who served the hospital faithfully and well as steward since September 1, 1918, died suddenly on December 7, 1933, as a result of coronary thrombosis and angina pectoris. Mr. Gilman was born in Hallowell, Maine, on June 11, 1880, and was graduated from the Hallowell High School, subsequently taking a business course in the Dirigo Business College at Augusta, Maine. He entered the State service at the Taunton State Hospital on December 22, 1903. He was a storekeeper at the Worcester Department of the Grafton State Hospital from July 31, 1907, to May 16, 1914, when he became steward at the Worcester State Hospital, which position he occupied until the date of his appointment at the Boston State Hospital. At the time of his death, he lacked a few days of having completed thirty years in the service of the Commonwealth. The following resolution was passed by the Board of Trustees at a meeting held on January 15, 1934:

*"Resolved, That in the death of our Steward, Mr. Arthur E. Gilman, on December 7th, the Hospital sustained a very great loss. Mr. Gilman's service for the past fifteen years had been distinguished for unusual efficiency, and the successful administration of our business affairs had been due to his unremitting devotion to the interests of the Hospital, his experienced understanding of its needs, and his wise decisions. He has been regarded as the outstanding steward in the State service, and the Department of Mental Diseases as well as the several hospitals have looked to him for advice. This hospital has indeed been fortunate in having had the benefit of his service, and the Trustees are glad to put on record their grateful appreciation of the assistance he has given them in the administration of the institution. They desire to express to his relatives their sincere sympathy in the bereavement which they have sustained."*

The following well-deserved tribute was paid to the memory of Mr. Gilman at a meeting of the stewards of the various State hospitals under the Department:

*"In his passing this Association loses one of its most respected and efficient Stewards, a friend and counselor to all of its members. The Commonwealth, and the hospitals he served so long and faithfully lose a capable executive. He was one whose presence and companionship will be sorely missed, not only by those who knew him intimately, but also by the host of friends he made during his life."*

Mr. S. Henry Franks was appointed Acting Steward on December 10, 1933, and became Steward of the hospital on May 22, 1934. Mr. Franks was born in England October 7, 1904, and is a graduate of the Liverpool Institute Preparatory School and of the Liverpool Institute. Since coming to the United States in 1920 he has become a naturalized American citizen. He has taken special courses in business administration and business economics. He entered the State hospital service as a supervisor at the Metropolitan State Hospital on October 7, 1930, became storekeeper shortly thereafter, and on November 1, 1933, was appointed assistant to the steward. Mr. Franks is married but has no children.

Dr. Herbert E. Herrin, Assistant Superintendent of the hospital since August 1, 1929, and a member of the medical staff since July 23, 1921, died suddenly on July 15, 1934. The following resolution, read at a conference of the Commissioner of Mental Diseases with the Superintendents of the various institutions under the Department, was adopted, and a copy was sent to Mrs. Herrin:

*"While absent with his wife on an extended sea trip to Miami and various other ports during his vacation, and apparently enjoying perfect health, Dr. Herrin died suddenly as a result of a cerebral embolism, on his way back to Boston, on July 15, 1934."*

*"Born at Augusta, Maine, on April 13, 1884, Dr. Herrin was educated in the Waterville High School and at Coburn Institute. He received his degree from the Tufts College Medical School in 1910, and served a year as an interne at the Long Island Hospital. He served for ten years on the staff of the New Hampshire State Hospital at Concord, and was First Assistant Physician at that place. He was on the staff of the Boston State Hospital for over thirteen years, and was appointed Assistant Superintendent on August 1, 1929. For nearly a year and a half he was Acting Superintendent."*

*"An instructor in the Psychiatric Department at the medical schools of both Tufts College and Boston University, his was an inspiring influence over the students who attended his lectures. A fellow of the American Psychiatric Association and of the American Medical Association, a member of the Massachusetts Psychiatric Society and the New England Society of Psychiatry, he was actively interested in the various organizations relating to his specialty. Looked upon as a personal friend by the patients under his charge, admired by his numerous associates in the State hospital service, he was respected by all as an able administrator and a physician well versed in psychiatry. He was a Mason of many years standing and a member of the Episcopal church."*

*"In his death the Commonwealth has sustained a loss which will be severely felt. The Commissioner of Mental Diseases and the Superintendents of the various institutions under the Department desire to extend to Mrs. Herrin their profound sympathy in this most unfortunate bereavement."*

The following letter was addressed to Mrs. Herrin by the Chairman of the Board of Trustees:

"My dear Mrs. Herrin:

On behalf of the Trustees of the Boston State Hospital, I wish to express our very deep sympathy with you in your great bereavement. The Trustees are sensible of their very great loss in the unexpected death of their Assistant Superintendent. Dr. Herrin had endeared himself to all of us and had gained our complete confidence and our grateful appreciation by his indefatigable devotion to his duties, his sympathy with the patients, his fine insight into the needs of the hospital, and his understanding of its problems. During the past year he had carried uncomplainingly and most successfully the added burden of the office of Superintendent. He had rendered a splendid service to the Commonwealth and to the individual patients under his charge.

"His all too brief life was filled with unselfish usefulness. It was a life worth living. Many will remember him with gratitude, and his influence will abide with us.

Very sincerely yours,

HENRY LEFAVOUR,

*Chairman."*

Religious services were held as usual during the year. We are particularly indebted to Rev. Frederick G. M. Driscoll, Rev. Harold Cramer, Rev. Frank L. Stedman, and Rabbi Moses L. Sedar for the time devoted to the hospital and the welfare of the patients.

The entertainment of patients has been carried on as usual during the year. Moving pictures were exhibited during the winter months and were much enjoyed by the patients, who like them better than any other form of entertainment that has ever been offered. In addition to this, occasional dances were held. On Christmas morning, beginning at 5:30, a group of psychiatric student nurses visited the wards of the Psychiatric Clinic and all the female wards of the institution, singing carols. On Christmas night, a concert by the Philharmonic Trio, consisting of a violin, cello, and piano, with a soprano soloist, was given in the chapel at the East Group, which had been decorated with Christmas trees and evergreens for the occasion. A turkey dinner was served to all the patients and employees of the hospital. Bags of gifts assembled by the occupational therapy department were distributed generally to the patients throughout the hospital on Christmas morning. On June 30th, the annual Field Day for patients and employees was held at the West Group. There were athletic events, with prizes, and a baseball game. Refreshments were served, consisting of peanuts, doughnuts, ice cream, and tonic. Boston Elevated busses transported the East Group patients to the field in the West Group. The expenses of the Field Day were defrayed by the Employees' Club. No band concert was given at this time, but there was a band concert at the West Group on August 21st by musicians from the Emergency Relief Association. At the East Group, four concerts were given by musicians from this same organization, on the following dates: May 16, June 7, July 13, and August 10. On October 29th, a Hallowe'en party was given for patients and employees, and on November 21st and 28th entertainments by The American Federated Actors, Units 2 and 10, were very much enjoyed by the patients. The first of these consisted of comedy sketches, tap and acrobatic dancing, and a one-act playlet, and the second was a minstrel show. On Thanksgiving Day a turkey dinner was served to patients and employees throughout the hospital.

The following painting was done during the year:

*East Group:* interior of East B Building, and of storehouse, including refrigerators flour rooms, etc., and head house at new greenhouse.

*West Group:* interior of main kitchen, staff kitchen, staff dining room, clerks' dining room, kitchen and dining room in West A Building, and employees' quarters in West D Building, exterior of Assistant Superintendent's house, attendants' cottage, and West A Building; and interior and exterior of West E I and West E II. During the summer months, the cement floors and the base of the Administration Building were painted, and in November the trim on the outside of the building was touched up.

The interior of West D-1 and of the West F Building and the rooms and corridors in the West G Building were painted by patients. A group of patients painted 1¾ miles of iron boundary fence with one coat of red lead and one coat of paint during the summer. The window guards in the West G Building were also painted by patients.

The painters removed the glass from the windows of the old greenhouse in the East Group, dismantling it preparatory to removing the structure to a new location.

The carpenters and masons constructed a head house for the new greenhouse during the spring, and in November a garage for the use of the Assistant Superintendent was erected and painted.

Considerable plastering and pointing was done in January in East B-2, wornout linoleum replaced with new, and the dining room floors in East B-1 and B-2 covered with linoleum.

The floors of corridors adjacent to the toilet rooms in the East C Building were replaced in January.

In this same month, plumbers replaced with new brass piping the large galvanized iron feed line supplying water to all of the hydrotherapy equipment in the East B Building. This line had become corroded and filled with rust to such an extent that its removal was necessary.

During the month of February, general repair work was done by the carpenters in the East C Building, and wornout floors replaced. The masons replaced a ceiling in the lower floor of the East Group staff house. A wornout tube in Boiler No. 4 was replaced.

A severe wind during a storm in February practically demolished one of the large ventilators on the roof of the West B Building and damaged several other ventilators and considerable of the slate roofing, necessitating temporary repairs.

During March and April, repairs were made to the Assistant Superintendent's house, and the ceiling was replaced in the dormitory in West C Building.

A fifth tub was installed in the continuous bath room at West A Building in April.

During the year, six street lights were installed on the road to the Psychiatric Clinic, and two lampposts have been set up in front of the new laboratory and research building, and three in front of the new West Office Building. All of these posts were made by hospital employees.

During the summer, forms were made and cement poured for 842 feet of cement sidewalk and 1,254 feet of cement curbing, laid out at the Psychiatric Clinic.

A new road has been built during the year, leading from Harvard Street, past the Psychiatric Clinic, to the West Group.

Considerable grading has been done around the Psychiatric Clinic by a group of patients. Some grading has also been done around the new carpenter shop in the East Group.

Walks, curbs, and roads are being installed around the new laboratory and research building in the West Group, so that it will be possible to reach this building by the time it is ready to use.

The new greenhouse, erected entirely by hospital carpenters and masons, was opened on February 15, 1934, and was finally completed in October, 1934. The old greenhouse was removed to a site north of the new head house and greenhouse.

A 3-ton White truck, which has been in use at the hospital for many years, was replaced in February by a new 2½ ton G.M.C. truck.

It is a pleasure to note that the Canterbury Branch of Stony Brook, which was seriously obstructed by weeds and an accumulation of soil, not having been cleaned out since 1926, has been put in excellent shape during the summer months by men employed under the direction of the engineer of the City of Boston, and financed as a Boston C.W.A. project.

Under the provisions of the National Recovery Act, the following P.W.A. funds were rendered available by the Federal and State governments for construction at the Boston State Hospital:

Carpenter Shop	\$18,000.
Employees and Officers Building	177,000.
West Male Employees Building	334,000.

Laboratory and Mortuary Building . . . . .	70,000.
Three Officers' Cottages . . . . .	52,000.
Tuberculosis Pavilion . . . . .	173,000.
Power Plant . . . . .	422,000.

Total . . . . . \$1,246,000.

The contracts for this construction were awarded by the Department of Mental Diseases as follows:

*On March 9, 1934:*

Carpenter Shop —

Erection, including plumbing, heating and ventilating, and electric wiring, Grande & Volpe . . . . . \$12,863.00

Male Employees' Building —

Erection, Thomas O'Connor & Co. . . . . \$197,400.00

Plumbing, J. A. Cotter Co. . . . . 9,037.00

Heating and Ventilating, V. J. Kenneally Co. . . . . 19,283.00

Electric Wiring, G. & N. Engineering Co. . . . . 7,595.00

Employees' and Officers' Building —

Erection, D'Amore Construction Co. . . . . \$98,700.00

Plumbing, James A. Cotter Co. . . . . 5,727.00

Heating and Ventilating, J. J. Hurley & Co. . . . . 13,747.00

Electric Wiring, G. & N. Engineering Co. . . . . 3,974.00

Central Power Plant —

Additions and Alterations to Building, D'Amore Construction Co. . . . . 32,600.00

Steam Piping, Equipment, etc., Cleghorn Co. . . . . 85,928.00

Boilers without Flue, International Engineering Works . . . . . 31,712.00

*On April 25, 1934:*

Laboratory and Mortuary Building —

Erection, including plumbing, heating and ventilating, and electric wiring, Matthew Cummings Co., Inc. . . . . \$54,400.00

*On May 7, 1934:*

Three Officers' Cottages —

Erection, including plumbing, heating and ventilating, and electric wiring, L. C. Blake Construction Co. . . . . \$39,368.00

*On May 24, 1934:*

Tuberculosis Pavilion —

Erection, P. J. Cantwell & Son . . . . . \$112,838.00

Plumbing, Lappin Bros., Inc. . . . . 9,874.00

Heating and Ventilating, Florence & Co. . . . . 21,450.00

Electric Wiring, M. B. Foster Electric Co. . . . . 4,189.00

Central Power Plant —

Installing Turbo-generators and Switchboard, G. & N. Engineering Co. . . . . \$40,820.00

*On June 28, 1934:*

Central Power Plant —

Coal-handling equipment, Waghorne-Brown Co. . . . . \$16,694.00

Pulverized coal-burning equipment, Riley Stoker Corp. . . . . 31,118.00

*On July 13, 1934:*

Central Power Plant —

Installation of oil-burning equipment, Acme Heating and Ventilating Co. . . . . \$15,794.00

*On September 5, 1934:*

Central Power Plant —

Removing present boilers and settings and installing new boiler settings, Rust Engineering Co. . . . . \$22,077.00

*On September 12, 1934:*

Central Power Plant —

Removing present smoke flue, and installing new flue, International

Engineering Works, Inc. . . . . \$4,150.00

Excavation for the new carpenter shop was begun on March 27, and the building was completed and occupied on June 14, 1934. All the other projects were well under way at the end of the year, and the laboratory and research building was practically ready for occupancy. The other buildings will probably not be opened until next June.

During the past year, Mr. Joseph Goss Cowell of Wrentham has been conducting an art class at the Psychiatric Clinic, no charge being made for his services. He visits the Clinic on Wednesday mornings. A great deal of interest has been taken in this work by many of the patients. His theory is that it will be of considerable benefit to certain types of individuals, and apparently it is working very successfully. An exhibit of the work done by the patients is on view at the class room in the basement of the Clinic building, and Mr. Cowell plans on showing this collection later at one of the art clubs in Boston.

In October there was installed in the small room adjacent to the medical library in the Clinic a locked glass exhibition case for the display of various books of historical interest on the subject of psychiatry, and also relating to this institution. In this collection is a copy of the first English edition of "American Notes" by Charles Dickens, in which the author gives an account of his visit to the Boston Lunatic Hospital, at that time located in South Boston.

The hospital has been visited from time to time by officials from various parts of this country and other countries.

On August 3, a visit of inspection was made by the Commissioner of the Department of Mental Diseases, accompanied by the Associate Commissioners, the Assistant Commissioner, and the Commissioner of the Budget.

Dr. Rebekah B. Wright, hydrotherapist to the Department of Mental Diseases, spent December and January here, supervising the work and instruction in the hydrotherapeutic department of the hospital, and has made occasional other visits to the institution.

Various representatives from the Department of Mental Diseases have visited the hospital from time to time during the year.

On September 7, the members of the Emergency Public Works Commission, with Dr. Lefavour, the Chairman, visited the hospital and inspected the new construction.

On March 26, a conference relative to the examination of juvenile delinquents was conducted in the Psychiatric Clinic by Dr. Raymond A. Kinmonth, Assistant to the Commissioner of the Department of Mental Diseases. This was attended by physicians from all of the Massachusetts State Hospitals.

On April 24, a meeting of the New England Physical Therapy Society was held at the same place under the direction of Dr. Rebekah B. Wright, with demonstrations of hydrotherapeutic procedures in the hydriatric suite.

The spring meeting of the New England Society of Psychiatry was held on April 27 at the Psychiatric Clinic, attended by about one hundred and sixty members and guests. Luncheon was served, followed by a business meeting and an address by Dr. Kenneth J. Tillotson on "Impressions of European Psychiatry."

On October 27, the semi-annual conference of the Department of Mental Diseases with the Trustees of the hospitals under its supervision was held at the Psychiatric Clinic.

#### DEVELOPMENT OF THE HOSPITAL

A list of items for special appropriations for construction was submitted to the Department of Mental Diseases, to cover the needs of the institution for the next twenty-five years, as follows:

1. Assembly Hall . . . . .	\$192,000
2. Placing electric wires underground, and new steam line from East to West Group . . . . .	121,500
3. Road construction and sidewalks . . . . .	200,000

4. Sewage and surface draining system . . . . .	25,000
5. Grading . . . . .	15,000
6. Laundry equipment . . . . .	25,510
7. Three Officers' Cottages . . . . .	50,000
8. Garage for twenty-five cars . . . . .	30,000
9. Paint shop . . . . .	16,000
10. Salvage yard . . . . .	12,000
11. Recreation Building . . . . .	115,000
12. Industrial Building . . . . .	40,000
13. Additional story on Laboratory Building . . . . .	23,000
14. Storehouse (farm equipment) . . . . .	10,000
15. Replacement of stucco buildings:	
East Group:	
16. East A Building, 76 patients . . . . .	175,000
17. East E and F Buildings, 200 patients . . . . .	490,000
18. East Kitchen and Dining Room Building . . . . .	265,000
19. Remodelling old East Dining Room Building for storage purposes. . . . .	75,000
20. East Fire House . . . . .	6,000
West Group:	
21. West C. Building, 170 patients . . . . .	435,000
22. West D. Building, 170 patients . . . . .	435,000
23. West Staff House . . . . .	83,000
24. West Kitchen and Dining Room Building . . . . .	320,000
25. Temporary addition to present West Kitchen and Dining Room Building . . . . .	7,500
26. West Fire House . . . . .	6,000
27. Razing all old stucco buildings . . . . .	60,000

Total . . . . .	\$3,232,510
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*Assembly Hall.* — This is probably the only institution in the State that has no centrally located assembly hall for the use of patients. We have a small chapel in the West Group which accommodates approximately 225 patients, in a group housing over 1,700. This takes up space which is badly needed for other purposes, and it was built at a time when the West Group cared for about 300 patients. There is a small chapel building in the East Group, which is large enough for that part of the hospital alone, but is not adequate to the needs of the entire institution, with a population of over 2,200. The result of this arrangement is that a large number of our patients have to be brought over after dark from the West Group to the East Group for moving picture shows, dances, and other entertainments. Very frequently this results in escapes, the ward employees being unable to keep track of so many patients on the grounds, which are not adequately lighted on the way from the East Group to the West. Owing to these circumstances, there is a large number of patients who never have any opportunity to go to our entertainments at all. This state of affairs should be remedied by the erection of a centrally located assembly hall on the grounds of the West Group, — one which will be of sufficient size for 1,200 people. It should, of course, be large enough to accommodate all the patients who can be taken to entertainments.

*Placing Electric Wires Underground, and New Steam Line from the West Group:* Electric current is generated at the East Group and the wiring for this Group of buildings is now underground. The high tension current for the West Group, one mile distant, is carried by overhead wires on wooden poles. This line crosses Morton Street, a much traveled highway. It is necessary to renew poles constantly, and during stormy weather in the winter the line breaks frequently, causing the major part of the institution to be in darkness. This is a very serious condition because there are over seventeen hundred infirm, sick, and disturbed patients occupying buildings in this Group. The crossing of the highway by this line is a potential danger to the public, and perhaps a greater danger to the patients who work in the grounds and fields through which this line runs. If the line were underground, all of these risks would be avoided.



The West Group is now supplied with steam through two mains, forming a loop. One of these is an 8-inch supply with a 3-inch return, while the other is a 6-inch supply with a 2½-inch return. Owing to the development of the institution and the increase in the number of buildings in the West Group, the present steam mains are somewhat overloaded for safe and economical operation. If there is any interruption of service in the 8-inch main (and this has occurred at various times in the past), the 6-inch line is not large enough to supply steam for heating, hot water, cooking, etc., during the winter. The return line is not large enough to carry the water condensation if one return is out of commission. Supplying heat for the 1,700 patients and 200 employees of the West Group is a matter of vital importance, and a new steam main should be put in, running directly from the power house in the East Group to the West Group, at the earliest possible opportunity. This would involve two items, as follows:

New trunk line from power house to Pit No. 18 . . . . .	\$55,000
Future extensions to Pits No. 12 and No. 20 . . . . .	17,250

Total . . . . .	\$72,250
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*Road Construction and Sidewalks.* No appropriation has ever been granted for road construction at this institution. It has been necessary, therefore, to use cinders for all such work, and the result has been far from satisfactory from either an economic or a utilitarian viewpoint. There is a very large amount of travel over these roads, and during fair weather the dust stirred up by passing vehicles is a nuisance. During rainy weather, the cinders wash out, leaving deep ruts, which require almost constant repairs to make the roads even passable. Such construction as has been planned would practically end road repairs for all time.

No money has ever been appropriated for the construction of sidewalks leading from the city streets to the buildings of this institution. The roads during the spring and fall are very muddy, and during the winter are at times almost impassable for foot traffic, owing to slush and snow. There are about one hundred thousand visitors to the hospital yearly, a large proportion of them are pedestrians, and our own employees, about five hundred and forty in number, must use these roads to reach car lines. A large number of patients must travel between groups, a distance of more than a mile, to attend church services and entertainments.

*Sewage and Surface Draining System.* The sewage system of the hospital is antiquated, and extensive changes should be made at as early a date as possible. There never has been any surface drainage system, the drain pipes around the various buildings running out to the adjoining lower levels of the hospital property. These should all be connected up into one system and empty into the Canterbury Branch of Stony Brook. The new buildings in the development of the hospital render these changes very necessary.

*Grading.* It has been impossible to do the necessary grading at this hospital. This is due principally to the fact that we have a large population of patients of the infirmary type and a comparatively small number of ablebodied working patients. As a result, the grading has fallen far behind the new construction. Grounds about the buildings erected as long ago as 1920 still require some grading. Unless there is a special appropriation, it will be years before the grading around the new Psychiatric Clinic and the other new buildings will be accomplished.

*Laundry Equipment.* The following laundry equipment is very badly needed:

Shirt unit:

2 cuff presses at \$250 . . . . .	\$500
1 collar and neckband press . . . . .	250
1 body and bosom press . . . . .	655
1 sleeve form press . . . . .	125
1 finishing table . . . . .	60

Presses:

Six air-driven presses as follows:

2 No. 52 presses at \$675 . . . . .	1,350
4 No. 5138 presses at \$575 . . . . .	2,300

Ironer:

1 6-roll 120-inch ironer complete with Hamilton spring padding and full vacuum features . . . . .	8,270
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Washers, 4 at \$3,000 . . . . .	12,000
Total . . . . .	\$25,510

*Three Officers' Cottages.* The hospital has never had adequate facilities for living quarters for married couples. Additional cottages are very badly needed, and three more are requested at an estimated cost of \$50,000, total.

*Garage for Twenty-five Cars.* No garage has ever been built for the hospital, as has been shown repeatedly. The building that we use for this purpose was designed originally for the boiler house for the West Group. It is entirely inadequate and we often have to leave some of the cars outside, exposed to the weather. We have not been able to furnish garage space to our doctors, who have to depend to a considerable extent on their own transportation facilities. We have a number of other employees, persons whose services are of great value to the institution, who have cars and use them very largely on State business without any reimbursement for this, and have no place in which their machines can be kept. I feel that it would be very decidedly to the advantage of the State to furnish them with garage space. The building we are now using is not large enough to properly accommodate the cars belonging to the State, and does not make it possible for us to offer facilities for officers and employees above referred to. It is not a desirable place for a garage, being located within 20 to 30 feet of the West Group staff dining room.

*Paint Shop.* — The present paint shop is located in the basement of the laundry building, the third floor of which is used as an industrial room. This is a violation of the laws of the State. The paint shop should be located in a separate structure and its presence in any of our existing buildings constitutes a fire menace which should be removed as soon as possible.

*Salvage Yard.* — The hospital has never been provided with a salvage yard. As the older buildings are torn down we have salvaged a lot of valuable lumber, but it has to stand outside subject to the summer rains and winter snows. This should all be stored where some protection can be afforded it. A salvage yard similar to those which have been provided for other hospitals during the last ten years or more is very much to be desired.

*Recreation Building.* — With the development of the hospital it is felt that a recreation building would constitute a very important addition to the present institution. It should contain a gymnasium, swimming pool, and space for other forms of recreation which would be of great importance in bringing about the restoration of recoverable cases to the community.

*Industrial Building.* — At the present time, our industrial work at the West Group is done in the basement of the women's infirmary building (West B), which has a capacity of 430 beds. The wards of this building are used for aged, infirm, and bed-ridden patients, a type which would be practically helpless in case of fire. The industrial shop in the basement beneath not only is too small for its purpose, but offers a serious fire menace in that it contains a large amount of inflammable material such as broom corn, reed, raffia, mattresses, etc. This arrangement has been criticized repeatedly by the Department of Public Safety and by the fire officials of the City of Boston. It cannot be defended, and should be remedied at the earliest possible moment. A building entirely separate from a ward building is the only satisfactory solution to this problem.

*Additional Story to Laboratory Building.* — With the elaboration of the research work which is going on here under the direction of the Department, it is already very obvious that at some time during the next twenty-five year period a third floor should be added to the present laboratory and research building. It would be desirable to have this done during the next few years at the outside.

*Storehouse (farm equipment).* — This is necessary to protect the property of the Commonwealth. We have never had any place to store farm equipment, and much of it is left outside the year round, with the natural result that it deteriorates rapidly. A storehouse for this purpose would be a source of considerable economy.

*Replacement of Stucco Buildings.* — These stucco buildings have wooden floors, wooden stairways, an obsolete system of electric wiring, and cannot be provided with any adequate means of fire protection. The Fire Commissioner of the City of Boston has recommended "That all the old buildings, wooden and stucco covered, should be demolished and buildings of 1st class fireproof construction be erected

in their stead. . . . These recommendations, which may appear extensive, are an urgent necessity and based on the nature of the occupancy, and the character of the construction which is hardly fit for persons of normal physical and mental condition." These buildings constitute a fire menace and should, in justice to our patients, be removed and replaced by fireproof structures. They house over 600 patients. One of the worst of the old stucco buildings is the West Group Office Building. Like all the others, it has wooden stairways and wooden floors. There are eleven female employees housed in the partly unfinished attic on the third floor. In replacing this building it will be desirable to build a West Group Staff House which will furnish kitchen and dining room facilities for all of the doctors of the West Group except those who will occupy cottages. It should also have accommodations for four physicians and six internes.

The West Group Kitchen and Dining Room Building has never been satisfactory. It would be very desirable to furnish cafeteria service to the patients who are eating in that place. As a part of the general replacement of the stucco buildings, a new Kitchen and Dining Room Building should be erected where the present West Group stucco office building is now located. Such an arrangement would make it possible for the male patients to go in through tunnels from both the West C and the West D Buildings.

When the old West Group Office Building is torn down, it will be necessary to provide accommodations for the fifty employees eating there. This can be done in the form of a temporary structure which can be removed when the new kitchen and dining room is completed, if this program is carried out.

The removal of the old administration building in the East Group will make it possible now to build a new Kitchen and Dining Room Building which can be connected by means of tunnels with the East F and the East A Buildings. This would put the kitchen and dining room building in a place where it should be. The present building has never been entirely satisfactory. It would also make it possible to remodel the existing Kitchen and Dining Room Building for the purpose of furnishing additional storage capacity adjoining the old storeroom. This is something that has been very badly needed for years. It has been necessary to store things in the basements of buildings — an undesirable arrangement which should be done away with as soon as possible. The old kitchen and dining room building would lend itself very effectively to this plan and would furnish excellent storage capacity in a place where it is needed.

Two small brick buildings, one for the East and one for the West Group, should be built to house the fire equipment which is very necessary for the protection of the hospital property.

The sum of \$60,000 should be provided for razing all of the old stucco buildings as the new ones are finished.

Respectfully submitted,

JAMES V. MAY,

*Superintendent.*

### VALUATION

November 30, 1934

#### REAL ESTATE

Land, 224.66 acres . . . . .	\$632,034.45
Buildings and betterments . . . . .	3,504,549.64
	<hr/>
	\$4,136,584.09

#### PERSONAL PROPERTY

Travel, transportation and office expenses . . . . .	\$748.33
Food . . . . .	12,366.43
Clothing and materials . . . . .	31,337.09
Furnishings and household supplies . . . . .	310,030.14
Medical and general care . . . . .	17,377.78
Heat and other plant operation . . . . .	2,378.31
Farm . . . . .	5,834.94
Garage and grounds . . . . .	13,453.35
Repairs . . . . .	6,326.90
	<hr/>
	\$399,853.27

#### SUMMARY

Real estate . . . . .	\$4,136,584.09
Personal property . . . . .	399,853.27
	<hr/>
	\$4,536,437.36

## FINANCIAL STATEMENT

*To the Department of Mental Diseases:*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1934.

STATEMENTS OF EARNINGS	
Board of patients . . . . .	\$82,205.87
Personal Services:	
Reimbursement from Board of Retirement . . . . .	284.00
Sales:	
Travel, transportation and office expenses . . . . .	\$117.81
Food . . . . .	293.90
Furnishings and household supplies . . . . .	20.68
Medical and general care . . . . .	.30
Garage and grounds . . . . .	.30
Repairs ordinary . . . . .	1.80
Arts and crafts sales . . . . .	1,990.00
Farm . . . . .	8.00
Total sales . . . . .	2,431.79
Miscellaneous:	
Rents . . . . .	120.00
Total earnings for the year . . . . .	\$85,041.66
Total cash receipts reverting and transferred to the State Treasurer . . . . .	\$85,041.66
MAINTENANCE APPROPRIATION	
Balance from previous year, brought forward . . . . .	15,425.41
Appropriation, current year . . . . .	813,585.00
Total . . . . .	829,010.41
Expenditures as follows:	
Personal services . . . . .	\$425,819.13
Food . . . . .	153,939.47
Medical and general care . . . . .	19,578.93
Religious instruction . . . . .	1,919.74
Farm . . . . .	4,465.93
Heat and other plant operation . . . . .	78,620.35
Travel, transportation and office expenses . . . . .	6,525.75
Garage and grounds; garage, 9,205.43; grounds, 2,297.14 . . . . .	11,502.57
Clothing and materials . . . . .	20,680.25
Furnishings and household supplies . . . . .	29,621.21
Repairs ordinary . . . . .	12,817.68
Repairs and renewals . . . . .	9,118.27
Total maintenance expenditures . . . . .	774,609.28
Balance of maintenance appropriation, November 30, 1934 . . . . .	54,401.13
SPECIAL APPROPRIATIONS	
Balance December 1, 1933, brought forward . . . . .	\$2,380.87
Appropriation for current year . . . . .	1,288,000.00
Total . . . . .	\$1,290,380.87
Expended during year (see statement below) . . . . .	\$528,965.94
Balance November 30, 1934, carried to next year . . . . .	\$761,395.03

APPROPRIATION	Total Amount Appropriated	Expended during fiscal year	Total Expended to date	Balance at end of year
Reception Building, equipment	\$400,000.00	\$1,736.97	\$399,356.10	\$643.90
Mass. State Project No. M-1 Docket 875, carpenter shop	18,000.00	14,553.28	14,553.28	3,446.72
Mass. State Project No. M-2 Docket 960, power plant	422,000.00	131,907.34	131,907.34	290,092.66
Mass. State Project No. M-4 Docket 959, Male Employees' Building	334,000.00	159,830.97	159,830.97	174,169.03
Mass. State Project No. M-5 Docket 976, Employees' and Officers' Building	177,000.00	74,512.29	74,512.29	102,487.71
Mass. State Project No. M-29 Docket 1944, Laboratory and Mortuary Building	70,000.00	42,321.53	42,321.53	27,678.47
Mass. State Project No. M-3 Docket 2658, T. B. Pavilion	173,000.00	71,323.11	71,323.11	101,676.89
Mass. State Project No. M-6 Docket 2065, three officers' cottages	52,000.00	32,795.13	32,795.13	19,204.87
Mass. State Project No. M-4A and M-5A Docket 1991, furniture and equipment; M-4 furniture and equipment, M-5	42,000.00	5.22	5.22	41,994.78
	\$1,688,000.00	\$528,985.84	\$926,604.97	\$761,395.03

## PER CAPITA

During the year the average number of patients has been 2,260.418  
 Total cost of maintenance, \$774,609.28  
 Equal to a weekly per capita cost of (52 weeks to year) \$6.59007  
 Total receipts for the year, \$85,041.66  
 Equal to a weekly per capita of, \$.7235  
 Total net cost of Maintenance for year \$689,567.62  
 Net weekly per capita, \$.86657

Respectfully submitted,

ROSE J. COVINO,

Treasurer.

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION, PRESCRIBED BY THE  
 MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

Date correct at end of institution year November 30, 1934

Date of opening as a hospital for mental diseases, December 11, 1839.

Type of hospital: State (Since December 1, 1908).

Hospital plant:

Value of hospital property . . . . .	\$632,034.45
Real estate, including buildings . . . . .	3,504,549.64
Personal property . . . . .	399,853.27

Total . . . . .	\$4,536,437.36
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Total acreage of hospital property owned, 224.66

Total acreage under cultivation during previous year, 114.3882

Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendent . . . . .	1	—	1	—	—	—
Assistant Superintendent . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	7	7½	14½	—	—	—
Clinical assistants . . . . .	—	—	—	1	—	1
Total physicians . . . . .	9	7½	16½	1	—	1
Stewards . . . . .	1	—	1	—	—	—
Resident dentists . . . . .	1	—	1	—	—	—
Pharmacists . . . . .	1	—	1	—	—	—
Graduate nurses (including Psychiatric) . . . . .	—	31	31	—	—	—
Other nurses and attendants . . . . .	137	140	277	6	2	8
Occupational therapists . . . . .	—	11	11	—	—	—
Industrial therapists . . . . .	3	1	4	—	1	1
Social workers . . . . .	—	5	5	—	—	—
All other officers and employees . . . . .	92	94	186	—1½	—	—1½
Total officers and employees . . . . .	244	289½	533½	5½	3	8½

Census of patient population at end of year:

	Actually in Hospital			Absent from Hospital but still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane . . . . .	895	1,304	2,199	101	121	222
Epileptics . . . . .	—	2	2	—	—	—
Mental defectives . . . . .	4	6	10	—	—	—
All other cases . . . . .	2	4	6	—	—	—
Total . . . . .	901	1,316	2,217	101	121	222
OTHER RACES:						
Insane . . . . .	31	49	80	4	5	9
All other cases . . . . .	1	—	1	—	—	—
Total . . . . .	32	49	81	4	5	9
Grand Total . . . . .	933	1,365	2,298	105	126	231

	M.	F.	T.
Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .	102	184	286
Other patients employed in general work of hospital on date of report . . . . .	304	471	775
Average daily number of all patients actually in hospital during year . . . . .	917.82	1,313.34	2,231.16

TABLE 2. *Movement of Patient Population for the Year Ended September 30, 1934*  
(Data in all of the following tables are based on the Statistical Year, October 1, 1933 to September 30, 1934)

	TOTAL			REGULAR COURT COMMITMENT (INSANE)			OBSERVATION			TEMPORARY CARE		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1933	981	1,447	2,428	966	1,444	2,410	15	3	18	-	-	-
Admissions during year:												
First admissions	320	290	610	263	252	515	13	11	24	44	27	71
Readmissions	72	81	153	35	53	88	20	15	35	17	13	30
Total admissions	392	371	763	298	305	603	33	26	59	61	40	101
Transfers from other mental hospitals	15	21	36	15	21	36	-	-	-	-	-	-
Total received during year	407	392	799	313	326	639	33	26	59	61	40	101
Total on books during year	1,388	1,839	3,227	1,279	1,770	3,049	48	29	77	61	40	101
Discharged from books during year:												
As recovered	41	43	84	32	40	72	1	2	3	8	1	9
As improved	57	73	130	44	65	109	3	1	4	10	7	17
As unimproved	39	44	83	6	21	27	9	4	13	24	19	43
As without psychosis	34	28	62	1	6	7	18	14	32	15	8	23
Total discharged to community	171	188	359	83	132	215	31	21	52	57	35	92
Transferred to other mental hospitals	11	6	17	11	6	17	-	-	-	-	-	-
Died during year	168	154	322	162	148	310	2	1	3	4	5	9
Total discharged, transferred and died during year	350	348	698	256	286	542	33	22	55	61	40	101
Patients remaining on books of hospital at end of year:												
In hospital	933	1,365	2,298	930	1,360	2,290	3	5	8	-	-	-
On parole or otherwise absent	105	126	231	105	126	231	-	-	-	-	-	-
Total <sup>1</sup>	1,038	1,491	2,529	1,035	1,486	2,521	3	5	8	-	-	-
SUPPLEMENTARY DATA												
Average daily number of patients on books during year							Males			Females		
Actually in institution during year							1,020.32			1,446.94		
In family care							917.82			1,313.34		
On visit							-			12.38		
On escape							100.54			121.76		
Number of patients actually remaining in institution September 30, 1934							1.96			-		
State							855			1,195		
Reimbursing							78			170		
Ex-service patients paid by Federal Government							-			248		
Number of patients in family care September 30, 1934							-			1		
State							-			9		
Self-supporting							-			1		
Number of non-insane patients in hospital at end of institution year:							4			6		
Mentally defective							-			2		
Epileptic							-			2		
Others							3			4		

<sup>1</sup>The total males and females in the Insane and Observation groups will not balance through September 30, 1934, owing to the fact that 12 male and 2 female patients had a C.L.S. during the year from Observation 100 to Court 100.

TABLE 3. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States <sup>1</sup>	143	135	278	45	47	39	45	43	33
Africa	—	—	—	—	1	—	—	—	—
Canada <sup>2</sup>	21	26	47	23	21	14	26	24	19
China	—	—	—	—	1	—	—	—	—
Czecho-Slovakia	—	1	1	—	—	—	1	1	1
England	13	3	16	12	11	9	7	7	3
Finland	—	—	—	1	1	1	—	—	—
France	—	1	1	2	1	1	1	—	—
Germany	2	2	4	7	3	3	4	1	1
Hungary	—	1	1	—	—	—	2	2	2
Ireland	47	47	94	78	85	75	69	74	63
Italy	14	9	23	18	17	17	14	14	14
Norway	—	—	—	1	1	1	1	—	—
Poland	4	3	7	5	5	5	3	5	3
Portugal	1	1	2	3	4	3	1	1	1
Russia	10	8	18	15	15	15	17	16	16
Scotland	2	2	4	9	5	5	3	3	3
South America	—	1	1	—	—	—	—	—	—
Sweden	1	6	7	2	1	1	5	5	5
West Indies <sup>3</sup>	—	2	2	—	—	—	2	2	2
Other Countries	5	3	8	5	5	5	4	3	3
Unknown	—	1	1	37	38	35	47	51	45
Total	263	252	515	263	263	229	252	252	214

<sup>1</sup>(Persons born in Hawaii, Porto Rico and the Virgin Islands should be recorded as born in the U. S.)<sup>2</sup>Includes Newfoundland.<sup>3</sup>Except Cuba, Porto Rico and Virgin Islands.





TABLE 5. *Citizenship of First Admissions*

	M.	F.	T.
Citizens by birth . . . . .	143	135	278
Citizens by naturalization . . . . .	70	34	104
Aliens . . . . .	28	26	54
Citizenship unknown . . . . .	22	57	79
Total . . . . .	263	252	515

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			With syphilitic meningo-encephalitis			With other infectious diseases			Alcoholic psychoses			Due to drugs, etc.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	8	18	26	1	1	2	—	—	—	2	2	4	—	—	—
Chinese . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Dutch and Flemish . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
English . . . . .	15	5	20	1	—	1	—	—	—	1	—	1	—	—	—
Finnish . . . . .	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—
French . . . . .	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—
German . . . . .	6	3	9	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew . . . . .	16	19	35	1	—	1	—	1	1	1	—	1	—	—	—
Irish . . . . .	89	82	171	1	2	3	—	—	—	8	—	8	—	—	—
Italian <sup>1</sup> . . . . .	20	14	34	2	—	2	—	—	—	1	—	1	—	—	—
Lithuanian . . . . .	6	2	8	—	—	—	—	—	—	—	—	—	—	—	—
Magyar . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese . . . . .	3	2	5	—	—	—	—	—	—	1	—	1	—	—	—
Scandinavian <sup>2</sup> . . . . .	2	7	9	—	—	—	—	—	—	—	—	—	—	—	—
Scotch . . . . .	3	4	7	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup> . . . . .	5	6	11	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
Mixed . . . . .	78	77	155	2	4	6	—	—	—	9	1	10	—	1	1
Race unknown . . . . .	7	9	16	—	1	1	—	—	—	—	1	1	—	—	—
Total . . . . .	263	252	515	8	8	16	—	1	1	23	4	27	—	1	1

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Traumatic psychoses			With cerebral arteriosclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Senile psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	—	—	—	1	7	8	1	—	1	1	—	1	—	2	2
Chinese . . . . .	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Dutch and Flemish . . . . .	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
English . . . . .	—	—	—	10	1	11	—	—	—	—	1	1	—	1	1
Finnish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French . . . . .	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—
German . . . . .	—	—	—	4	1	5	—	—	—	—	—	—	—	1	1
Hebrew . . . . .	—	—	—	4	2	6	—	—	—	—	1	1	—	—	—
Irish . . . . .	—	—	—	47	31	78	—	—	—	—	2	2	3	11	14
Italian <sup>1</sup> . . . . .	—	—	—	8	3	11	—	—	—	—	—	—	1	1	2
Lithuanian . . . . .	—	—	—	1	—	1	—	—	—	—	—	—	—	1	1
Portuguese . . . . .	1	—	1	—	1	1	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup> . . . . .	—	—	—	1	3	4	—	—	—	—	1	1	—	—	—
Scotch . . . . .	—	—	—	—	1	1	—	—	—	—	—	—	—	1	1
Slavonic <sup>3</sup> . . . . .	—	—	—	1	1	2	—	1	1	—	—	—	—	—	—
Other specific races . . . . .	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Mixed . . . . .	1	—	1	39	21	60	—	1	1	3	1	4	1	13	14
Race unknown . . . . .	—	—	—	6	6	12	—	—	—	—	—	—	1	1	2
Total . . . . .	2	—	2	126	79	205	1	2	3	4	6	10	6	32	38

<sup>1</sup>Includes "North" and "South"<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Involutional psychoses			Due to other metabolic diseases, etc.			With organic changes of nervous system			Psycho-neuroses			Manic-depressive psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	1	—	1	—	—	—	—	—	—	1	5	6
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch and Flemish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	2	—	2	1	—	1	—	—	—	—	—	—	1	1	2
Finnish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	2	1	3
Hebrew	—	—	—	—	—	—	—	—	—	—	—	—	8	9	17
Irish	1	2	3	1	1	2	—	—	—	3	—	3	15	16	31
Italian <sup>1</sup>	—	1	1	—	—	—	—	—	—	—	—	—	5	5	10
Lithuanian	—	—	—	—	—	—	1	1	2	—	—	—	2	—	2
Magyar	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
Scandinavian <sup>2</sup>	—	1	1	—	—	—	—	—	—	—	—	—	1	—	1
Scotch	—	—	—	—	—	—	—	—	—	1	1	—	2	—	2
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	1	1	—	1	3	4
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Mixed	1	1	2	—	—	—	2	1	3	—	—	—	16	19	35
Race unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4	5	9	3	2	5	3	2	5	3	2	5	55	61	116

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Dementia praecox			Paranoia and paranoid conditions			With psychopathic personality			With mental deficiency			Without psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch and Flemish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Finnish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	1	1	2	1	3	4	—	1	1	—	—	—	—	1	1
Irish	4	3	7	2	10	12	1	—	1	2	2	4	1	2	3
Italian <sup>1</sup>	1	1	2	1	2	3	—	—	—	1	1	2	—	—	—
Lithuanian	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—
Magyar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—
Scotch	1	—	1	—	1	1	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	1	—	1	1	—	1	—	—	—	—	—	—	1	—	1
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	2	2	4	1	7	8	—	1	1	1	3	4	—	1	1
Race unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	10	7	17	8	28	36	1	2	3	4	6	10	2	4	6

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. Age of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	Total			0-14 years			15-19 years			20-24 years			25-29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	8	8	16	-	-	-	-	-	-	-	-	-	1	-	1
With other infectious diseases . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	1	-	1
Alcoholic psychoses . . . . .	23	4	27	-	-	-	-	-	-	2	-	2	1	-	1
Due to drugs, etc. . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses . . . . .	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis . . . . .	126	79	205	-	-	-	-	-	-	-	-	-	-	-	-
With other disturbances of circulation . . . . .	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . . . .	4	6	10	-	-	-	-	-	-	2	2	4	1	-	1
Senile psychoses . . . . .	6	32	38	-	-	-	-	-	-	-	-	-	-	-	-
Involuntional psychoses . . . . .	4	5	9	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc. . . . .	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system . . . . .	3	2	5	-	-	-	-	-	-	1	-	1	-	-	-
Psychoneuroses . . . . .	3	2	5	-	-	-	-	-	-	-	-	-	1	-	1
Manic-depressive psychoses . . . . .	55	61	116	1	-	1	8	2	10	10	9	19	9	7	16
Dementia praecox . . . . .	10	7	17	-	-	-	1	-	1	3	2	5	1	1	2
Paranoia and paranoid conditions . . . . .	8	28	36	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality . . . . .	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency . . . . .	4	6	10	-	-	-	1	-	1	2	2	4	-	-	-
Without psychosis . . . . .	2	4	6	-	-	-	-	1	1	1	1	2	-	-	-
Total . . . . .	263	252	515	1	-	1	10	3	13	21	16	37	13	9	22

TABLE 7. Age of First Admissions Classified with Reference to Principal Psychoses — Continued

PSYCHOSES	30-34 years			35-39 years			40-44 years			45-49 years			50-54 years			55-59 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	1	-	1	1	2	3	1	1	2	1	1	2	-	2	2	1	2	3
With other infectious diseases . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Alcoholic psychoses . . . . .	5	-	5	1	1	2	6	-	6	1	-	1	2	2	4	4	1	5
Due to drugs, etc. . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	1	-	1	1	-	1	2	1	3	7	7	14
With other disturbances of circulation . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . . . .	1	-	1	-	2	2	-	-	-	-	1	1	-	-	-	-	1	1
Senile psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Involuntional psy'ses . . . . .	-	-	-	-	-	-	-	-	-	3	3	1	1	1	2	3	-	3
Due to other metabolic diseases, etc. . . . .	-	-	-	-	-	-	-	1	1	1	-	1	-	1	1	-	-	-
With organic changes of nervous system . . . . .	-	-	-	-	-	-	-	-	-	1	-	1	1	-	1	-	1	1
Psychoneuroses . . . . .	1	-	1	-	-	-	1	-	1	1	-	1	-	1	1	-	-	-
Manic-depressive psychoses . . . . .	2	5	7	3	9	12	5	5	10	4	7	11	3	8	11	6	4	10
Dementia praecox . . . . .	3	-	3	2	1	3	-	2	2	-	1	1	-	-	-	-	-	-
Paranoia and paranoid conditions . . . . .	1	-	1	-	1	1	1	3	4	3	8	11	1	6	7	-	5	5
With psychopathic personality . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency . . . . .	-	1	1	-	2	2	1	1	2	-	-	-	-	-	-	-	-	-
Without psychosis . . . . .	-	1	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	14	8	22	8	19	27	16	15	31	13	21	34	11	22	33	21	22	43

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	60-64 years			65-69 years			70-74 years			75-79 years			80-84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic men- ingo-encephalitis . . .	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to drugs, etc. . .	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses . .	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
With cerebral arterio- sclerosis . . .	22	9	31	26	20	46	31	15	46	22	12	34	9	12	21	5	3	8
With other distur- bances of circulation . .	-	1	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
With convulsive dis- orders (epilepsy) . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses . . .	-	6	6	2	5	7	3	10	13	1	3	4	-	3	3	-	4	4
Involuntional psychoses .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc. . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psy- choses . . .	3	3	6	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
Dementia praecox . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions . . .	-	2	2	-	1	1	1	2	3	1	-	1	-	-	-	-	-	-
With psychopathic per- sonality . . .	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Without psychosis . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Total . . .	29	23	52	31	29	60	37	28	65	24	15	39	9	15	24	5	7	12

TABLE 8. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	Total			Illiterate		Reads Only		Reads and Writes		Common School		High School		College		Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	8	8	16	1	-	1	-	1	5	7	12	1	-	1	-	-	1	1
With other infectious diseases	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	23	4	27	1	-	1	-	-	16	4	20	3	-	3	1	1	2	2
Due to drugs, etc.	-	1	1	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
Traumatic psychoses	2	-	2	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-
With cerebral arteriosclerosis	126	79	205	16	6	22	-	2	62	31	93	11	4	15	3	1	4	31
With other disturbances of circulation	1	2	3	-	-	-	-	-	1	2	3	-	-	-	-	-	-	61
With convulsive disorders (epilepsy)	4	6	10	1	-	1	-	-	2	4	6	1	-	1	1	1	1	1
Senile psychoses	6	32	38	-	3	3	-	-	4	9	13	1	1	2	-	-	1	17
Involuntional psychoses	4	5	9	-	-	-	-	-	4	4	8	-	-	1	1	-	1	18
Due to other metabolic diseases, etc.	3	2	5	-	-	-	-	-	2	1	3	1	1	2	-	-	-	-
With organic changes of nervous system	3	2	5	-	-	1	-	1	1	1	2	-	-	-	1	1	1	1
Psychoneuroses	3	2	5	-	-	-	-	-	1	1	2	-	-	-	2	1	2	4
Manic-depressive psychoses	55	61	116	2	1	3	-	3	29	35	64	19	19	38	3	1	4	2
Dementia praecox	10	7	17	5	-	5	-	-	9	5	14	1	2	3	1	4	5	5
Paranoia and paranoid conditions	8	28	36	2	5	7	-	-	4	15	19	1	1	1	-	1	4	5
With psychopathic personality	1	2	3	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-
With mental deficiency	4	6	10	1	1	2	-	1	-	2	4	6	1	1	-	-	-	-
Without psychosis	2	4	6	-	-	-	-	-	2	-	2	-	-	1	-	1	1	1
Total	263	252	515	25	17	42	-	2	145	124	269	41	34	75	10	7	17	37
																	57	94

TABLE 9. *Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			0-2,499			2,500-9,999			25,000-49,999			500,000+			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . .	8	8	16	-	-	-	-	-	-	-	-	-	8	8	16	-	-	-
With other infectious diseases . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Alcoholic psychoses . . .	23	4	27	-	-	-	-	-	-	-	-	-	22	4	26	1	-	1
Due to drugs, etc. . .	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Traumatic psychoses . . .	2	-	2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-
With cerebral arteriosclerosis . . .	126	79	205	-	-	-	-	-	-	1	-	1	124	79	203	1	-	1
With other disturbances of circulation . . .	1	2	3	-	-	-	-	-	-	-	-	-	1	2	3	-	-	-
With convulsive disorders (epilepsy) . . .	4	6	10	-	-	-	-	-	-	-	-	-	4	6	10	-	-	-
Senile psychoses . . .	6	32	38	-	-	-	-	1	1	-	-	-	6	31	37	-	-	-
Involuntional psychoses . . .	4	5	9	-	-	-	-	-	-	-	-	-	4	5	9	-	-	-
Due to other metabolic diseases, etc. . .	3	2	5	1	-	1	-	-	-	-	-	-	2	2	4	-	-	-
With organic changes of nervous system . . .	3	2	5	-	-	-	-	-	-	-	-	-	3	2	5	-	-	-
Psychoneuroses . . .	3	2	5	-	-	-	-	-	-	-	-	-	3	2	5	-	-	-
Manic-depressive psychoses . . .	55	61	116	-	-	-	-	-	-	-	-	-	55	61	116	-	-	-
Dementia praecox . . .	10	7	17	-	-	-	-	-	-	-	-	-	10	7	17	-	-	-
Paranoia and paranoid conditions . . .	8	28	36	-	-	-	-	-	-	-	-	-	8	28	36	-	-	-
With psychopathic personality . . .	1	2	3	-	-	-	-	-	-	-	-	-	1	2	3	-	-	-
With mental deficiency . . .	4	6	10	-	-	-	-	-	-	-	-	-	4	6	10	-	-	-
Without psychosis . . .	2	4	6	-	-	-	-	-	-	-	-	-	2	4	6	-	-	-
Total . . .	263	252	515	1	-	1	-	1	1	1	-	1	259	251	510	2	-	2

TABLE 10. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Dependent			Marginal			Comfortable			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . .	8	8	16	2	1	3	6	5	11	-	-	-	-	2	2
With other infectious diseases . . .	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
Alcoholic psychoses . . .	23	4	27	4	2	6	19	1	20	-	-	-	-	1	1
Due to drugs, etc. . .	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
Traumatic psychoses . . .	2	-	2	-	-	-	2	-	2	-	-	-	-	-	-
With cerebral arterio-sclerosis . . .	126	79	205	46	24	70	64	26	90	2	1	3	14	28	42
With other disturbances of circulation . . .	1	2	3	-	-	-	1	2	3	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . .	4	6	10	-	4	4	3	2	5	1	-	1	-	-	-
Senile psychoses . . .	6	32	38	3	14	17	3	11	14	-	-	-	-	7	7
Involuntional psychoses . . .	4	5	9	-	-	-	4	5	9	-	-	-	-	-	-
Due to other metabolic diseases, etc. . .	3	2	5	1	-	1	1	2	3	-	-	-	1	-	1
With organic changes of nervous system . . .	3	2	5	1	-	1	1	1	2	-	-	-	1	1	2
Psychoneuroses . . .	3	2	5	2	1	3	1	1	2	-	-	-	-	-	-
Manic-depressive psychoses . . .	55	61	116	16	10	26	39	44	83	-	1	1	-	6	6
Dementia praecox . . .	10	7	17	4	2	6	6	5	11	-	-	-	-	-	-
Paranoia and paranoid conditions . . .	8	28	36	2	2	4	6	24	30	-	1	1	-	1	1
With psychopathic personality . . .	1	2	3	1	-	1	-	2	2	-	-	-	-	-	-
With mental deficiency . . .	4	6	10	3	3	6	1	3	4	-	-	-	-	-	-
Without psychosis . . .	2	4	6	-	2	2	2	1	3	-	1	1	-	-	-
Total . . .	263	252	515	85	65	150	159	137	296	3	4	7	16	46	62

TABLE 11. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . .	8	8	16	1	2	3	3	3	6	4	1	5	-	2	2
With other infectious diseases . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
Alcoholic psychoses . . .	23	4	27	-	-	-	-	-	-	23	4	27	-	-	-
Due to drugs, etc. . .	-	1	1	-	-	-	-	-	-	-	1	1	-	-	-
Traumatic psychoses . . .	2	-	2	-	-	-	-	-	-	2	-	2	-	-	-
With cerebral arterio-sclerosis . . .	126	79	205	28	32	60	52	5	57	21	4	25	25	38	63
With other disturbances of circulation . . .	1	2	3	1	1	2	-	1	1	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . .	4	6	10	2	4	6	1	1	2	1	-	1	-	1	1
Senile psychoses . . .	6	32	38	2	12	14	3	2	5	-	1	1	1	17	18
Involuntional psychoses . . .	4	5	9	-	4	4	4	1	5	-	-	-	-	-	-
Due to other metabolic diseases, etc. . .	3	2	5	1	1	2	2	1	3	-	-	-	-	-	-
With organic changes of nervous system . . .	3	2	5	2	1	3	1	-	1	-	-	-	-	1	1
Psychoneuroses . . .	3	2	5	2	1	3	1	-	1	-	1	1	-	-	-
Manic-depressive psychoses . . .	55	61	116	15	30	45	32	18	50	8	6	14	-	7	7
Dementia praecox . . .	10	7	17	2	4	6	7	3	10	-	-	-	1	-	1
Paranoia and paranoid conditions . . .	8	28	36	1	13	14	7	11	18	-	-	-	-	4	4
With psychopathic personality . . .	1	2	3	1	1	2	-	1	1	-	-	-	-	-	-
With mental deficiency . . .	4	6	10	3	3	6	1	1	2	-	1	1	-	1	1
Without psychosis . . .	2	4	6	1	3	4	1	-	1	-	-	-	-	1	1
Total . . .	263	252	515	62	113	175	115	48	163	59	19	78	27	72	99

TABLE 12. *Marital Condition of First Admissions Classified to Principal Psychoses*

PSYCHOSES	Total			Single			Married			Widowed			Divorced			Separated			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis.	8	8	16	4	-	4	2	6	8	1	2	3	-	-	-	1	-	1	-	-	-
With other infectious diseases	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	23	4	27	11	-	11	9	1	10	2	2	4	-	-	-	1	1	2	-	-	-
Due to drugs, etc.	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses	2	-	2	-	-	-	1	9	1	1	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	126	79	205	24	17	41	44	9	53	52	51	103	4	1	5	2	-	2	-	1	1
With other disturbances of circulation	1	4	5	1	-	1	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	4	6	10	4	5	9	1	5	6	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	1	32	33	2	1	3	2	3	5	4	21	25	-	-	-	-	-	-	-	-	-
Involuntary psychoses	6	3	9	1	-	1	1	2	2	-	1	1	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	4	5	9	2	1	3	1	5	6	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	3	2	5	1	-	1	1	2	3	-	1	1	1	-	-	-	-	-	-	-	-
Psychoneuroses	3	2	5	1	-	1	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	55	61	116	37	19	56	14	32	46	2	8	10	1	1	2	1	1	2	-	-	-
Dementia praecox	10	7	17	8	4	12	1	1	2	1	1	1	1	1	1	1	1	1	-	-	-
Paranoia and paranoid conditions	8	28	36	-	16	16	5	9	14	1	2	3	2	-	2	-	1	1	-	-	-
With psychopathic personality	1	2	3	1	1	2	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	4	6	10	4	5	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Without psychosis	2	4	6	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	263	252	515	102	79	181	84	75	159	63	91	154	9	2	11	5	4	9	-	1	1



TABLE 13. *Mental Disorders of All Admissions, All Discharges, All Deaths, 1934, All Cases in Residence and All Cases Out on September 30, 1934, by Status of Admission and Sex.*

	ALL ADMISSIONS <sup>1</sup>			ALL DISCHARGES <sup>1</sup>			ALL DEATHS		RESIDENT POPULATION			PATIENTS OUT ON VISIT, ETC.																		
	First Admissions	Readmissions	M. F. T.	First Admissions	Readmissions	M. F. T.	First Admissions	Readmissions	M. F. T.	First Admissions	Readmissions	M. F. T.	First Admissions	Readmissions																
	M. F. T.	M. F. T.		M. F. T.	M. F. T.		M. F. T.	M. F. T.		M. F. T.	M. F. T.		M. F. T.	M. F. T.																
<i>Psychoses Due to or Associated with Infection:</i>																														
Syphilis of the General Nervous System:																														
Meningo-encephalitic type (general paresis) . . .	8	8	16	3	3	6	1	2	3		5	4	9	3	1	4	25	11	36	24	6	30	2	1	3	1	1	2		
Meningo-vascular type (cerebral syphilis) . . .	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	3	4	7	-	2	2	-	-	-	-	-	-		
Other types . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-		
With epidemic encephalitis . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-		
With other infectious disease . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-		
Post-infectious psychoses . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-		
<i>Psychoses Due to Intoxication:</i>																														
Due to Alcohol:																														
Pathological intoxication . . .	2	-	2	2	-	2	2	-	2	1	-	1	-	-	-	-	17	-	17	-	-	-	-	1	-	1	2	-	2	
Korsakow's psychosis . . .	6	1	7	-	-	-	-	1	1	-	3	1	4	1	-	4	8	8	8	5	1	6	2	-	2	-	-	-	-	
Acute hallucinosis . . .	13	-	13	1	1	2	8	2	10	-	1	1	1	-	-	19	19	19	7	1	8	6	-	6	-	1	1	2		
Other types . . .	8	3	11	2	1	3	2	-	2	1	2	3	3	2	5	-	47	14	61	30	12	42	2	1	3	1	3	1	4	
Due to Drugs or Other Exogenous Poisons:																														
Due to metals . . .	1	-	1	-	-	-	1	-	1	-	-	-	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	
Due to gases . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Due to opium and derivatives . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Due to other drugs . . .	-	1	1	-	1	1	1	-	1	-	-	-	-	-	-	-	1	1	1	1	1	1	-	-	-	-	1	1		
<i>Psychoses Due to Trauma:</i>																														
Traumatic delirium . . .	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	1	-	1	-	-	-	1	-	1	-	-	-	-	
Post-traumatic personality disorders . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3	1	1	1	-	-	-	-	-	-	-	
Post-traumatic mental deterioration . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	1	1	2	-	-	-	-	-	-	-	
Other types . . .	1	-	1	-	1	1	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Psychoses Due to Disturbance of Circulation:</i>																														
With cerebral arteriosclerosis . . .	146	99	245	10	4	14	24	28	52	5	1	6	95	69	164	2	7	9	87	105	192	7	8	15	14	6	20	1	1	2
With cardio-renal disease . . .	1	2	3	-	-	-	-	2	2	-	-	-	1	-	1	-	-	-	2	-	2	-	1	1	-	1	-	-	-	
Other types . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

TABLE 13. *Mental Disorders of All Admissions, All Discharges, All Deaths, 1934, All Cases in Residence and All Cases Out on September 30, 1934, by Status of Admissions and Sex*—Concluded

	ALL ADMISSIONS <sup>1</sup>			ALL DISCHARGES <sup>1</sup>			ALL DEATHS			RESIDENT POPULATION			PATIENTS OUT ON VISIT, ETC.									
	First Admissions		Readmissions	First Admissions		Readmissions	First Admissions		Readmissions	First Admissions		Readmissions	First Admissions		Readmissions							
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.							
<i>Psychoses Due to Convulsive Disorders (Epilepsy):</i>																						
Epileptic deterioration . . .	1	4	5	1	—	1	—	—	—	—	2	2	—	1	8	9	3	2	5	—	—	—
Epileptic clouded states . . .	4	3	7	1	3	4	3	2	5	1	—	1	—	6	6	12	3	4	7	3	1	4
Other epileptic types . . .	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
<i>Psychoses Due to Disturbances of Metabolism, Growth, Nutrition or Endocrine Function:</i>																						
<i>Senile Psychoses:</i>																						
Simple deterioration . . .	3	23	26	1	—	1	—	—	—	6	19	25	—	1	3	32	1	5	6	1	2	3
Presbyophrenic type . . .	2	4	6	—	—	—	—	—	—	2	5	7	—	1	2	3	—	1	1	—	—	—
Depressed and agitated types . . .	—	2	2	—	—	1	1	—	—	—	3	3	—	—	1	15	16	—	3	3	—	—
Paranoid types . . .	1	3	4	2	—	2	1	1	2	1	3	4	1	—	5	23	28	—	3	3	—	—
<i>Involuntional psychoses:</i>																						
Melancholia . . .	4	3	7	1	1	2	—	—	—	2	5	7	—	—	7	20	27	2	10	12	2	2
Paranoid types . . .	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—
<i>With diseases of the endocrine glands:</i>																						
Exhaustion delirium . . .	—	—	—	1	—	1	—	1	—	—	—	—	—	—	1	—	1	—	1	1	—	—
Alzheimer's disease . . .	1	1	2	—	—	1	1	—	—	1	—	1	—	—	2	2	—	1	—	2	2	—
<i>With other somatic diseases:</i>																						
<i>Psychoses Due to Unknown or Hereditary Causes, but Associated with Organic Changes:</i>																						
With multiple sclerosis . . .	1	—	1	—	—	1	—	—	—	—	—	—	—	—	3	—	3	—	—	—	—	—
With paralytic agitans . . .	—	1	1	—	—	—	—	—	—	—	1	1	—	—	2	2	—	1	1	—	—	—
With Huntington's chorea . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>With other brain or nervous diseases:</i>																						
Disorders of Psychogenic Origin or Without Clearly Defined Tangible Cause or Structural Change:	2	1	3	3	—	3	1	—	1	2	—	2	—	—	7	3	10	2	1	3	—	2
<i>Psychoneuroses:</i>																						
Anxiety hysteria . . .	1	1	2	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	1	1	—	—
Mixed hysterical psychoneurosis . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—



TABLE 13A. *Psychoses of Court Readmissions*

PSYCHOSES	Males	Females	Total
With syphilitic meningo-encephalitis . . . . .	2	2	4
Alcoholic psychoses . . . . .	4	—	4
Due to drugs, etc. . . . .	—	1	1
With cerebral arteriosclerosis . . . . .	5	4	9
With convulsive disorders (epilepsy) . . . . .	1	1	2
Senile psychoses . . . . .	2	—	2
Involuntional psychoses . . . . .	1	1	2
Due to other metabolic diseases, etc. . . . .	1	—	1
With organic changes of nervous system . . . . .	1	—	1
Psychoneuroses . . . . .	—	1	1
Manic-depressive psychoses . . . . .	12	27	39
Dementia praecox . . . . .	1	9	10
Paranoia and paranoid conditions . . . . .	1	5	6
With psychopathic personality . . . . .	3	—	3
With mental deficiency . . . . .	—	2	2
Without psychosis . . . . .	1	—	1
Total . . . . .	35	53	88

TABLE 14. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	3	2	5	—	1	1	3	—	3	—	1	1
Alcoholic psychoses . . . . .	8	4	12	2	1	3	5	2	7	1	1	2
Due to drugs, etc. . . . .	1	1	2	1	—	1	—	1	1	—	—	—
Traumatic psychoses . . . . .	1	—	1	1	—	1	—	—	—	—	—	—
With cerebral arteriosclerosis . . . . .	8	16	24	1	—	1	5	8	13	2	8	10
With other disturbances of circulation . . . . .	—	2	2	—	—	—	—	2	2	—	—	—
With convulsive disorders (epilepsy) . . . . .	2	1	3	1	—	1	1	—	1	—	1	1
Senile psychoses . . . . .	2	2	4	—	—	—	2	2	4	—	—	—
Involuntional psychoses . . . . .	—	3	3	—	1	1	—	2	2	—	—	—
Due to other metabolic diseases, etc. . . . .	—	1	1	—	1	1	—	—	—	—	—	—
With organic changes of nervous system . . . . .	2	—	2	—	—	—	2	—	2	—	—	—
Psychoneuroses . . . . .	1	1	2	1	—	1	—	1	1	—	—	—
Manic-depressive psychoses . . . . .	41	66	107	22	34	56	18	30	48	1	2	3
Dementia praecox . . . . .	4	3	7	—	—	—	3	—	3	1	3	4
Paranoia and paranoid conditions . . . . .	3	17	20	—	1	1	2	11	13	1	5	6
With psychopathic personality . . . . .	2	—	2	1	—	1	1	—	1	—	—	—
With mental deficiency . . . . .	4	7	11	2	1	3	2	6	8	—	—	—
Without psychosis . . . . .	1	6	7	—	—	—	—	—	—	—	—	—
Total . . . . .	83	132	215	32	40	72	44	65	109	6	21	27

TABLE 15. *Hospital Residence during This Admission of Court First Admissions Discharged during 1934*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	1	2	3	.46	.42	.43
Alcoholic psychoses . . . . .	7	3	10	3.57	.69	2.71
Due to drugs, etc. . . . .	1	1	2	.04	.12	.08
With cerebral arteriosclerosis . . . . .	8	15	23	.38	.20	.25
With other disturbances of circulation . . . . .	—	2	2	—	.12	.12
Senile psychoses . . . . .	2	2	4	.29	4.50	2.39
Involuntional psychoses . . . . .	—	3	3	—	4.50	4.50
Due to other metabolic diseases, etc. . . . .	—	1	1	—	.37	.37
With organic changes of nervous system . . . . .	2	—	2	1.85	—	1.85
Manic-depressive psychoses . . . . .	26	42	68	.98	.89	.93
Dementia praecox . . . . .	2	—	2	3.00	—	3.00
Paranoia and paranoid conditions . . . . .	2	12	14	.77	.45	.50
With psychopathic personality . . . . .	1	6	7	.71	.96	.92
With mental deficiency . . . . .	2	—	2	.66	—	.66
Without psychosis . . . . .	1	6	7	.29	.55	.52
Total . . . . .	55	95	150	1.23	.95	.99

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Mental Disorders

CAUSES OF DEATH	Total			With syphilitic meningo-encephalitis			With other forms of syphilis			Alcoholic psychoses			Due to drugs, etc.			Traumatic psychoses			With cerebral arterio-sclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
<i>Infectious and Parasitic Diseases:</i>																												
Erysipelas . . . . .	1	9	1																									
Tuberculosis of the respiratory system . . . . .	17	26	1																									
Tuberculosis of other organs . . . . .		1	2																									
<i>Cancer and Other Tumors:</i>																												
Cancer and other malignant tumors . . . . .	7	3	10																									
Tumor (non-cancerous) . . . . .	1		1																									
<i>Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases:</i>																												
Diabetes . . . . .		1	1																									
<i>Diseases of the Blood and Blood-making Organs</i>																												
Pernicious anemia . . . . .		1	1																									
<i>Diseases of the Nervous System and Organs of Special Sense:</i>																												
Encephalitis (non-epidemic) . . . . .	1	12	1																									
Cerebral hemorrhage . . . . .	3	15																										
General paralysis of the insane . . . . .	4	5	9																									
Other diseases of the nervous system . . . . .		1	1																									
<i>Diseases of the Circulatory System:</i>																												
Acute endocarditis . . . . .	1	2	3																									
Chronic endocarditis (valvular disease) . . . . .	5	1	6																									
Diseases of the myocardium . . . . .	57	39	96																									
Arteriosclerosis . . . . .	10	14	24																									
Gangrene . . . . .		1	1																									
<i>Diseases of the Respiratory System:</i>																												
Bronchopneumonia (including capillary bronchitis) . . . . .	35	45	80																									
Lobar pneumonia . . . . .	5	4	9																									
Other diseases (tuberculosis excepted) . . . . .	2	3	5																									
<i>Diseases of the Digestive System:</i>																												
Diseases of the buccal cavity and annexa and of the pharynx and tonsils (including adenoid vegetations) . . . . .	1		1																									
Ulcer of the stomach and duodenum . . . . .																												
Hernia, intestinal obstruction . . . . .	1	1	2																									
Biliary calculi and other diseases of the gall bladder and biliary passages . . . . .		1	1																									
Other diseases (cancer excepted) . . . . .	1		1																									
<i>Diseases of the Genito-Urinary System:</i>																												
Nephritis (acute, chronic and unspecified) . . . . .	3	2	5																									
<i>Diseases of the Skin and Cellular Tissue Violent and Accidental Deaths:</i>																												
Accidental poisoning . . . . .	2		2																									
Accidental traumatism . . . . .	1	2	3																									
Other external causes . . . . .	1		1																									
Total . . . . .	162	148	310	8	5	13	1	1	1	7	3	10	1	1	1	1	1	1	1	92	70	162	1	1	1	1	3	4





TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses

PSYCHOSES	Total			15-19 years		20-24 years		25-29 years		30-34 years		35-39 years		40-44 years		45-49 years					
	M.	F.		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T.					
		T.	T.																		
With syphilitic meningo-encephalitis	8	5	13	-	-	-	-	1	1	-	-	1	1	2	2	1	1				
With other forms of syphilis	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Alcoholic psychoses	7	3	10	-	-	-	-	-	-	-	-	1	1	1	1	-	-				
Due to drugs, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Traumatic psychoses	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
With cerebral arteriosclerosis	92	70	162	-	-	-	-	-	-	-	-	-	-	-	-	1	1				
With other disturbances of circulation	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
With convulsive disorders (epilepsy)	1	3	4	-	-	-	-	-	-	1	1	-	-	-	-	2	2				
Senile psychoses	10	31	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Involuntarist psychoses	2	5	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Due to other metabolic diseases, etc.	4	2	6	-	-	-	-	-	-	-	-	-	-	-	-	1	1				
With organic changes of nervous system	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-	1	1				
Psychoneuroses	13	11	24	-	1	1	-	1	1	1	1	-	1	1	-	1	2				
Manic-depressive psychoses	16	7	23	-	-	-	-	1	1	3	1	4	-	3	1	2	3				
Dementia præcox	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Paranoia and paranoid conditions	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
With psychopathic personality	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
With mental deficiency	2	1	3	-	-	-	-	1	1	-	-	-	-	-	-	-	-				
Total	162	148	310	-	1	1	1	1	3	6	2	8	2	2	4	6	4	10	5	7	12





TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses*

PSYCHOSES	Total			Less than 1 month		1-3 months		4-7 months		8-12 months		1-2 years		3-4 years	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	8	5	13	1	1	2	—	1	1	—	—	4	1	—	—
With other forms of syphilis . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Alcoholic psychoses . . . . .	7	3	10	1	—	1	—	1	1	—	—	—	—	1	2
Due to drugs, etc. . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	1	1
Traumatic psychoses . . . . .	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—
With cerebral arteriosclerosis . . . . .	92	70	162	39	28	67	20	17	37	6	5	11	10	3	6
With other disturbances of circulation . . . . .	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
With convulsive disorders (epilepsy) . . . . .	1	3	4	1	1	2	—	—	—	—	—	—	—	—	—
Senile psychoses . . . . .	10	31	41	1	4	5	1	6	7	—	—	—	6	—	6
Involutional psychoses . . . . .	2	5	7	2	—	—	2	2	1	—	—	—	1	—	—
Due to other metabolic diseases, etc. . . . .	4	4	8	2	—	2	—	—	—	—	—	—	—	—	—
With organic changes of nervous system . . . . .	2	3	5	—	—	—	1	1	2	—	—	2	2	—	—
Psychoneuroses . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Manic-depressive psychoses . . . . .	13	11	24	2	2	4	—	—	3	—	1	3	—	1	1
Dementia praecox . . . . .	16	7	23	—	—	—	—	—	—	—	1	—	—	—	—
Paranoia and paranoid conditions . . . . .	1	7	8	—	1	1	—	—	—	—	—	—	—	1	2
With psychopathic personality . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
With mental deficiency . . . . .	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	162	148	310	48	37	85	25	30	55	7	6	13	25	6	19

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses — Concluded*

PSYCHOSES	5-6 years			7-8 years			9-10 years			11-12 years			13-14 years			15-19 years			20 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
With other forms of syphilis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Alcoholic psychoses	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Due to drugs, etc.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Traumatic psychoses	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
With cerebral arteriosclerosis	1	1	2	.	.	.	.	.	.	1	1	1	.	.	.	.	.	.	.	.	.
With other disturbances of circulation	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
With convulsive disorders (epilepsy)	1	1	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Senile psychoses	.	2	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Involutional psychoses	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Due to other metabolic diseases, etc.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
With organic changes of nervous system	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Psychoneuroses	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Manic-depressive psychoses	3	2	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Dementia præcox	.	.	.	.	.	.	.	.	.	1	1	1	.	.	.	.	.	.	.	.	.
Paranoia and paranoid conditions	.	.	.	.	.	.	.	.	.	2	3	.	.	.	.	.	.	.	.	.	.
With psychopathic personality	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
With mental deficiency	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Total	5	6	11	4	5	9	2	5	7	1	3	4	4	2	6	8	4	12	9	8	17

TABLE 19. *Average Length of Hospital Residence during the Present Admission of All First Admission Cases in Residence on September 30, 1934*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	25	11	36	4.71	3.21	4.25
With other forms of syphilis	4	4	8	6.75	12.25	9.50
With epidemic encephalitis	—	1	1	—	2.50	2.50
With other infectious diseases	1	1	2	7.50	.45	3.98
Alcoholic psychoses	83	22	105	8.00	8.90	8.19
Due to drugs, etc.	—	2	2	—	.98	.98
Traumatic psychoses	6	—	6	6.92	—	6.92
With cerebral arteriosclerosis	87	105	192	2.36	2.68	2.54
With other disturbances of circulation	—	2	2	—	.45	.45
With convulsive disorders (epilepsy)	8	14	22	7.98	3.70	5.26
Senile psychoses	10	72	82	4.59	4.08	4.14
Involuntional psychoses	7	22	29	3.19	4.95	4.52
Due to other metabolic diseases, etc.	1	8	9	1.50	3.87	3.61
With organic changes of nervous system	10	5	15	4.89	10.89	6.89
Psychoneuroses	4	5	9	1.48	3.48	2.59
Manic-depressive psychoses	109	173	282	3.08	4.83	4.15
Dementia praecox	146	173	319	12.32	14.39	13.44
Paranoia and paranoid conditions	28	133	161	5.88	6.85	6.68
With psychopathic personality	2	10	12	.98	6.99	5.99
With mental deficiency	40	51	91	11.49	7.26	9.12
Undiagnosed psychoses	2	7	9	1.50	4.36	3.72
Without psychosis	5	8	13	2.27	4.84	3.85
Total	578	829	1,407	6.96	7.08	7.03

TABLE 19A. *Average Length of Hospital Residence during the Present Admission of All Readmission Cases in Residence on September 30, 1934*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	24	6	30	4.58	5.82	4.82
With other forms of syphilis	—	2	2	—	10.00	10.00
With other infectious diseases	—	1	1	—	7.50	7.50
Alcoholic psychoses	42	14	56	10.99	12.29	11.32
Due to drugs, etc.	1	—	1	3.50	—	3.50
Traumatic psychoses	2	1	3	17.50	17.50	17.50
With cerebral arteriosclerosis	7	8	15	2.33	3.74	3.08
With other disturbances of circulation	—	1	1	—	2.50	2.50
With convulsive disorders (epilepsy)	6	6	12	12.16	11.99	12.08
Senile psychoses	1	12	13	.45	9.33	8.64
Involuntional psychoses	2	10	12	11.48	12.69	12.49
Due to other metabolic diseases, etc.	1	2	3	4.50	4.50	4.50
With organic changes of nervous system	2	2	4	3.98	9.50	6.74
Psychoneuroses	2	3	5	5.50	6.13	5.88
Manic-depressive psychoses	55	137	192	6.75	7.68	7.41
Dementia praecox	172	247	419	15.36	14.32	14.74
Paranoia and paranoid conditions	8	35	43	9.12	9.12	9.12
With psychopathic personality	6	5	11	3.81	10.30	6.76
With mental deficiency	21	34	55	10.21	7.26	8.39
Undiagnosed psychoses	1	6	7	17.50	7.17	8.64
Without psychosis	2	4	6	1.98	6.99	5.32
Total	355	536	891	11.52	11.04	11.23

TABLE 20. *Family Care Statistics for Year Ended September 30, 1934*

	Males	Females	Total
Remaining in Family Care September 30, 1933	—	11	11
Admitted to Family Care During the Year	—	15	15
Whole Number of Cases within the Year	—	26	26
Discharged from Family Care within the Year	—	3	3
Returned to Institution	—	13	13
Remaining in Family Care September 30, 1934	—	10	10
Average Daily Number in Family Care during Year	—	12.38	12.38
Supported by State	—	12.33	12.33
Self-supporting	—	.05	.05





The Commonwealth of Massachusetts

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

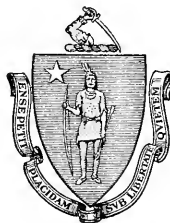
BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1935

THE NINETY-FIFTH ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION ON ADMINISTRATION AND FINANCE  
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BOSTON STATE HOSPITAL  
(Post Office Address: Dorchester Center, Mass.)

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TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council:*

The Trustees of the Boston State Hospital have the honor to submit herewith their twenty-seventh annual report covering the year ended November 30, 1935. The detailed operations of the year are shown in the reports of the Superintendent and Treasurer, which are appended.



## CHANGE IN MEMBERSHIP

The death of Mr. John A. Kiggen in January brought to an end the service of an esteemed colleague who had been a member of the Board for sixteen years.

At their February meeting the Trustees adopted the following minute:

*Resolved.* That the Trustees of the Boston State Hospital desire to place on record their high appreciation of their late colleague, Mr. John A. Kiggen, who died on January 6, 1935. Mr. Kiggen was first appointed in 1914 and with a brief intermission had been a member until his death, just previous to which he had been reappointed for another term. His deep interest in the institution, his faithful attendance when his business did not require his absence from the city, and his valued advice based on broad business experience and knowledge of public affairs were an asset to the Trustees, and his kindly humor and pleasant personality made him a most agreeable associate. The Trustees join in expressing to his family most heartfelt sympathy in their great loss.

In March, Mr. Thomas F. Fallon was appointed for the balance of Mr. Kiggen's term.

## PATIENTS IN THE CARE OF THE HOSPITAL

At the end of the year there were 2,313 patients in the hospital and 12 in family care. The average daily number for the year was 2,309.28 as compared with 2,260.41 for the preceding year. Although very much over the quota assigned to this hospital and in spite of transfers, the daily population tends to increase. As the various classifications do not increase equally, there is necessarily a considerable congestion in some of the wards.

## FINANCIAL STATEMENT

The appropriation for maintenance for the past year was \$935,730.00. The expenditures amounted to \$929,030.00, giving a weekly cost per patient of \$7.737.

The estimate for maintenance for the coming year, based on a population of 2,295, is as follows:

Personal services	\$538,280.00
Travel, transportation and office expenses	8,875.00
Food	220,700.00
Clothing and materials	36,550.00
Religious instruction	2,080.00
Furnishings and household supplies	43,200.00
Medical and general care	25,675.00
Heat and other plant operation	97,699.00
Farm	7,850.00
Garage and grounds	18,342.00
Repairs, ordinary	19,995.00
Repairs and renewals	32,585.00
Total	\$1,051,831.00

## CONSTRUCTION

The buildings erected by federal aid through the Emergency Public Works Commission, consisting of a remodelled power plant, a laboratory and mortuary building, a building for tuberculous patients, a building for 200 male employees, a building for the West office and 87 female employees, three officers' cottages, and a carpenter shop, have been completed with slight exceptions, but for the most part are awaiting equipment. The equipment has been partially delivered and is all under contract but the delay has been most vexatious. The power plant is in operation and with its alternative use of either coal or oil and its alternating current machinery the hospital secures an adequate and admirable service. The laboratory and mortuary and the carpenter shop are occupied, and the other buildings should be very soon available for use.

Although \$1,106,253 has been thus expended for improvements, the hospital is still far from complete on a modern standard. It lacks an assembly hall, suitable kitchens and dining rooms, officers' residences, and a number of minor buildings.

In spite of valuable assistance by federal relief projects, much needs to be done in road building, grading and underground wiring, steam and drainage services. Finally, there is the great fire hazard in the stucco buildings which should be replaced by fireproof construction. When this is done the hospital will have been almost entirely rebuilt. When the state acquired the property, it consisted of two separate units mostly of stucco and wood construction and accommodating only 764 patients. As it has grown, service buildings were added, but for the most part these were not constructed large enough for the ultimate population. The total construction expenditures with those needed to complete the plant may be as great as the cost of an entirely new hospital, but it is to be remembered that the amount paid to the City of Boston was not in excess of the value of the land.

The legislature at its last session appropriated \$13,000 for the continuation of the iron fence, and \$26,800 for equipping some of the buildings with sprinklers. These projects have not yet been undertaken, but the Emergency Public Works Commission has allotted a sufficient appropriation supplementing the state appropriation to provide for the complete sprinkling of the hospital.

The new buildings for employees are no more than adequate to house the employees in service two years ago. The new 48-hour law calls for 160 additional employees and for these there is no housing provision, and there will have to be a cash allowance in lieu of maintenance.

#### GENERAL OPERATIONS

The progress of the year has been uneventful except for a brief epidemic of measles and a fire that destroyed the roof of one of the buildings in the East Group. The patients were removed rapidly and safely and within an hour were established in other quarters. The roof was repaired and the building reoccupied in about six weeks.

Attention is called to the various educational services now rendered by the hospital. Students in the medical schools are attending clinics and special lectures and some are acting as internes. Members of the staffs of other hospitals are acquainting themselves with laboratory methods, and nurses are being prepared for psychiatric service. Most valuable work is being carried on in the research laboratory.

The Trustees desire to express again their appreciation of the unremitting service and care given by the officers and staff.

HENRY LEFAVOUR

KATHERINE G. DEVINE

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*Trustees.*

#### REPORT OF THE SUPERINTENDENT

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1935, and the fiscal year ending November 30, 1935. Founded by the City of Boston in 1839, this marks the completion of its ninety-sixth year as a hospital for mental diseases, and the twenty-seventh year of its history as a State institution.

#### MOVEMENT OF POPULATION

The census of the hospital on September 30, 1934, was as follows: in the wards, men, 933, women, 1,365, total, 2,298; at home on visit, men, 102, women, 116, total, 218; boarding out, men, none, women, 10; and out on escape, women, none, men, 3; making a total of 2,529, 1,038 men and 1,491 women, in the custody of the hospital.

During the year 421 men and 417 women, a total of 838, were received. This included the following: first admissions as insane, men, 250, women, 256, total, 506; readmissions as insane, men, 54, women, 52, total, 106; first admissions, temporary care, men, 69, women 49, total, 118; readmissions, temporary care, men, 33, women, 37, total, 70; and transferred from other institutions, men, 15, women, 23, total, 38. Four hundred and four, including 203 men and 201 women, were dis-

charged during the year. Twelve men and 57 women, a total of 69, were transferred to other institutions. One hundred and eight-six men and 181 women, a total of 367, died during the year.

The census on September 30, 1935, was as follows: in the wards, men, 944, women, 1,335, total, 2,279; at home on visit, men, 111, women, 121, total, 232; boarding out, men, none, women, 13; and out on escape, women, none, men, 3; making a total of 2,527, 1,058 men and 1,469 women, in the custody of the hospital.

The total number of cases treated during the year was 3,367, 1,459 men and 1,908 women.

The average daily number of patients for the statistical year was as follows: men, 1,043.61, women, 1,485.04, total, 2,528.65. The average daily number in the wards was: men, 935.60, women, 1,361.20; total, 2,296.80, or 90.83 % of the whole number. The average daily number at home on visit was, men, 104.94, women, 111.37, total, 216.31, or 8.56 %. The average daily number boarding out was, men, none, women, 12.47, or .49 %. The average daily number out on escape, was, men, 3.07, or .12 %. There were no women on escape. The average daily number of committed cases was, men, 928.10, women, 1,355.42, total, 2,283.52, or 99.42 % of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was, men, .017, women, .038, total, .055, or .0024 %. The average daily number of cases under complaint or indictment was, men, 12.66, women, 2.00, total, 14.66, or .64 %. The average daily number of cases acquitted of murder by reason of insanity was, women, none, men, 1.00 or .05 %. The average daily number of cases of insane prisoners under sentence was, women, none, men, 1.95, or .09 %. The average daily number of temporary care cases, all forms, was, men, 7.50, women, 5.78, total, 13.28, or .58 %. The average daily number of epileptics was, men, 14.00, women, 19.00, total, 33.00, or 1.44 %. The average daily number of tuberculous patients was, men, 22.66, women, 44.61, total, 67.27, or 2.93 %. The average daily number of reimbursing patients was, men, 91.98, women, 160.18, total, 252.16, or 10.98 %. The average daily number of cases supported by the State was, men, 843.62, women, 1,201.02, total, 2,044.64, or 89.02 %. The average daily number of ex-service cases on the books was, men, 41.01, women, 2.00, total, 43.01, or 1.70 % of the total number on the books. The average daily number of ex-service cases in the hospital was, men, 32.90, women, 2.00, total, 34.90, or 1.52 % of the total number of patients in the wards.

The recovery rate, based on the number of all first admissions (624), was 14.10 %; based on the total number cared for during the year (3,367), 2.61 %; based on the average daily number in the wards (2,296.80), 3.83 %; and based on the total number of admissions for the year (838), 10.50 %.

The death rate, based on the total number cared for during the year, was 10.90 %; and based on the average daily number in the wards, 15.98 %. Inasmuch as over 35 % of the population is of the infirm type, and about 10 % bed cases, the death rate at this institution is unusually large compared with similar hospitals. There are committed to the Boston State Hospital many acutely ill, senile, and infirm cases from the city that cannot readily be transported to a greater distance. It is obvious, for the same reason, that too much significance should not be attached to the recovery rate. In this connection, attention should be called to the fact that the first admissions for this year represent an average age on admission of 55.15 years.

Of the first admissions as insane, 215, or 42.49 %, were foreign born, and 351, or 69.37 %, were of foreign parentage on one or both sides. Fifty-two, or 10.27 %, were aliens. Citizenship was unascertained in 86, or 17 %. Of the 6,507 consecutive first admissions for the fifteen-year period ending September 30, 1935, 3,103, or 47.76 %, were foreign born; 5,110, or 78.53 %, were of foreign parentage on one or both sides; 1,091, or 16.77 %, were aliens; and citizenship was unascertained in 746, or 11.46 %.

The average age on admission was 55.15 years; 237, or 46.84 %, were sixty years of age or over; and 139, or 27.47 %, were seventy years of age or over. For the fifteen-year period ending September 30, 1935, the average on admission was 52.88 years; 2,687, or 41.29 %, were sixty years of age or over; and 1,492, or 22.92 %, were seventy years of age or over.

The first admissions for the year, classified according to legal status, under Chapter 123 of the General Laws, were as follows:

	M.	F.	T.	%
Committed cases (Sec. 51)	164	178	342	67.59
Committed cases (R. C. 77)	0	1	1	.20
Observation cases (Sec. Obs. 77)	14	8	22	4.35
Emergency cases (Sec. 78)	—	—	—	—
Temporary care cases (Sec. 79)	68	69	137	27.07
Persons under complaint or indictment (Sec. Obs. 100)	1	—	1	.20
Prisoners under sentence (Sec. 104)	3	—	3	.59
Total	250	256	506	100.00

Of the 506 first admissions for the year, the cause was unascertained or no cause given in 79, or 15.61%. In the 427 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 25, or 5.85%; arteriosclerosis, 201, or 47.07%; syphilis, 26, or 6.09%; alcoholism, 46, or 10.77%; involutional changes, 8, or 1.87%; and traumatism, 6, or 1.41%. There was a family history of mental diseases in 66, or 13.04%, mental defects in 2, or .40%, and nervous diseases in 6, or 1.19%, of the first admissions. Of the 6,507 first admissions to the hospital during the fifteen-year period ending September 30, 1935, the cause was unascertained or no cause given in 1,727 or 26.54%. In the 4,780 cases where a definite cause was assigned, the etiological factors are classified as follows: senility, 786, or 16.44%; arteriosclerosis, 1,569, or 32.80%; syphilis, 467, or 9.77%; alcoholism, 501, or 10.50%; involutional changes, 258, or 5.40%; and traumatism, 66, or 1.38%. There was a family history of mental diseases in 1,044, or 16.04%, mental defects in 111, or 1.70%; and nervous diseases in 241, or 3.70%, of the first admissions during this period.

The forms of mental disease shown by the 506 first admissions for the year briefly summarized, were as follows: psychoses with syphilitic meningo-encephalitis, 25, or 4.94%, psychoses with other forms of syphilis, 2, or .39%; psychoses with other infectious diseases, 3, or .59%; alcoholic psychoses, 37, or 7.31%; traumatic psychosis, 1, or .20%; psychoses with cerebral arteriosclerosis, 205, or 40.51%; psychoses with other disturbances of circulation, 3, or .59%; psychoses with convulsive disorders (epilepsy), 10, or 1.98%; senile psychoses, 26, or 5.14%; involutional psychoses, 5, or .99%; psychoses due to other metabolic diseases, 5, or .99%; psychoses with organic changes of the nervous system, 4, or .79%; psychoneuroses, 9, or 1.79%; manic-depressive psychoses, 98, or 19.37%; dementia praecox, 15, or 2.96%; paranoia and paranoid conditions, 33, or 6.52%; psychoses with psychopathic personality, 3, or .59%; psychoses with mental deficiency, 11, or 2.17%; and undiagnosed psychoses, 6, or 1.19%. Five, or .99% were without psychosis. The psychoses of all first admissions are shown in Table 13-A, on page 44.

The forms of mental disease shown by the 6,507 first admissions for the fifteen-year period ending September 30, 1935, are summarized as follows: psychoses with syphilitic meningo-encephalitis, 438, or 6.73%; psychoses with other forms of syphilis, 35, or .54%; psychoses with epidemic encephalitis, none; psychoses with other infectious diseases, 21, or .32%; alcoholic psychoses, 420, or 6.46%; psychoses due to drugs, etc., 27, or .41%; traumatic psychoses, 30, or .46%; psychoses with cerebral arteriosclerosis, 1,728, or 26.56%; psychoses with other disturbances of circulation, 62, or .95%; psychoses with convulsive disorders (epilepsy), 68, or 1.05%; senile psychoses, 809, or 12.43%; involutional psychoses, 125, or 1.92%; psychoses due to other metabolic diseases, etc., 110, or 1.69%; psychoses due to new growth, 15, or .23%; psychoses with organic changes of the nervous system, 95, or 1.46%; psychoneuroses, 56, or .86%; manic-depressive psychoses, 1,086, or 16.69%; dementia praecox, 517, or 7.95%; paranoia and paranoid conditions, 401, or 6.16%; psychoses with psychopathic personality, 40, or .61%; psychoses with mental deficiency, 182, or 2.80%; and undiagnosed psychoses, 179, or 2.75%. Sixty-three, or .97%, were without psychosis.

The forms of mental disease shown by the 106 readmissions for the year, committed as insane, were as follows: psychosis with syphilitic meningo-encephalitis, 1, or .94%; alcoholic psychoses, 6, or 5.66%; psychoses with cerebral arterio-

sclerosis, 7, or 6.60%; psychoses with convulsive disorders (epilepsy), 5, or 4.72%; manic-depressive psychoses, 58, or 54.72%; dementia praecox, 10, or 9.43%; paranoia and paranoid conditions, 7, or 6.60%; psychosis with psychopathic personality, 1, or .94%; and psychoses with mental deficiency, 8, or 7.55%. Three, or 2.83%, were without psychosis.

The total number of insane cases discharged during the year was 232. Of this number, 75, or 32.33%, were discharged as recovered; 106, or 45.70%, as improved; 32, or 13.79%, as unimproved; and 19, or 8.19%, as without psychosis.

The following is a study of the entire hospital residence in all hospitals for mental diseases, exclusive of all time out on visit, of the cases discharged during the year: 21, or 9.05%, were discharged after a residence of less than one month; 90, or 38.80%, after a residence of from one to six months; 39, or 16.81%, from six months to one year; 34, or 14.66%, from one to two years; 15, or 6.46%, from two to three years; 10, or 4.31%, from three to four years; 8, or 3.45%, from four to five years; 11, or 4.74%, from five to ten years; and 4, or 1.72%, ten years or over. The average duration of hospital residence was 1 year, 7 months, and 20 days.

Of the 351 deaths occurring during the year, 255, or 72.65%, represented cases dying at the age of sixty or over. In 164, or 46.72%, death occurred at the age of seventy or over. Of the 4,141 deaths occurring at the hospital during the fifteen-year period ending September 30, 1935, — 2,872, or 69.35%, were cases dying at the age of sixty or over; and in 1,640, or 39.60%, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: tuberculosis of the respiratory system, 18, or 5.13%; cancer and other malignant tumors, 11, or 3.13%; cerebral hemorrhage, 11, or 3.13%; general paralysis of the insane, 12, or 3.42%; chronic endocarditis, 3, or 1.85%; diseases of the myocardium, 130, or 37.03%; arteriosclerosis, 49, or 13.96%; bronchopneumonia, 77, or 21.91%; lobar pneumonia, 8, or 2.28%; and nephritis, 3, or .85%.

The psychoses represented by deaths occurring in the hospital during the year were as follows: psychoses with syphilitic meningo-encephalitis, 18, or 5.13%; alcoholic psychoses, 18, or 5.13%; psychoses with cerebral arteriosclerosis, 186, or 52.99%; psychoses with convulsive disorders (epilepsy), 4, or 1.13%; senile psychoses, 30, or 8.55%; involutional psychoses, 3, or .85%; psychoses due to other metabolic diseases, etc., 7, or 2.00%; psychoses with organic changes of the nervous system, 5, or 1.42%; manic-depressive psychoses, 35, or 9.97%; dementia praecox, 18, or 5.13%; paranoia and paranoid conditions, 14, or 3.99%; psychoses with mental deficiency, 6, or 1.71%; psychoses with other forms of syphilis, and psychoses with other disturbances of circulation, each 2, or .57%; and 1, or .28%, of each of the following: psychosis with other infectious disease, psychosis with psychopathic personality, and undiagnosed psychosis. Of the 186 cases of psychosis with cerebral arteriosclerosis dying in the hospital during the year, death was due in 4, or 2.15%, to cancer and other malignant tumors; in 8, or 4.30%, to cerebral hemorrhage; in 82, or 44.09%, to diseases of the myocardium; in 31, or 16.66%, to arteriosclerosis; and in 52, or 27.95%, to bronchopneumonia. Of the 30 cases of senile psychosis, death was due in 10, or 33.33%, to diseases of the myocardium; in 9, or 30.00%, to arteriosclerosis; and in 7, or 23.33%, to bronchopneumonia. Of the 35 cases of manic-depressive psychosis, death was due in 5, or 14.28%, to tuberculosis of the respiratory system; in 13, or 37.14%, to diseases of the myocardium; and in 7, or 20.00 per cent, to bronchopneumonia. Of the 18 cases of dementia praecox, death was due to tuberculosis of the respiratory system in 5, or 27.78%; to diseases of the myocardium in 8, or 44.44%; and to bronchopneumonia in 1, or 5.55%.

Of the 351 patients dying in the hospital during the year, the total duration of hospital residence was as follows: less than one year, 215, or 61.25%; one to three years, 44, or 12.53%; three to five years, 24, or 6.84%; five to seven years, 20, or 5.69%; seven to nine years, 9, or 2.36%; nine to eleven years, 8, or 2.28%; eleven to fifteen years, 13, or 3.70%; fifteen to twenty years, 10, or 2.83%; and twenty years and over, 8, or 2.28%.

The psychoses represented by the 2,279 patients in the hospital on September 30, 1935, were as follows: psychoses with syphilitic meningo-encephalitis, 68, or 2.98%; psychoses with other forms of syphilis, 9, or .39%; psychosis with epidemic

encephalitis, 1, or .04%; psychoses with other infectious diseases, 5, or .22%; alcoholic psychoses, 162, or 7.11%; psychosis due to drugs, etc., 1, or .04%; traumatic psychoses, 9, or .39%; psychoses with cerebral arteriosclerosis, 208, or 9.13%; psychoses with other disturbances of circulation, 4, or .18%; psychoses with convulsive disorders (epilepsy), 36, or 1.58%; senile psychoses, 86, or 3.77%; involuntional psychoses, 38, or 1.67%; psychoses due to other metabolic diseases, etc., 9, or .39%; psychoses due to new growth, none; psychoses with organic changes of the nervous system, 20, or .88%; psycho neuroses, 15, or .66%; manic-depressive psychoses, 483, or 21.19%; dementia praecox, 727, or 31.90%; paranoia and paranoid conditions, 215, or 9.43%; psychoses with psychopathic personality, 25, or 1.10%; psychoses with mental deficiency, 139, or 6.10%; and undiagnosed psychoses, 9, or .39%. Ten, or .44%, were without psychosis.

The average duration of hospital residence, during the present admission, of all cases in the hospital on September 30, 1935, classified according to psychoses, was as follows: psychoses with syphilitic meningo-encephalitis, 4.61 years; psychoses with other forms of syphilis, 9.83 years; psychoses with epidemic encephalitis, 3.50 years; psychoses with other infectious diseases, 3.07 years; alcoholic psychoses, 9.46 years; psychoses due to drugs, etc., 4.50 years; traumatic psychoses, 14.83 years; psychoses with cerebral arteriosclerosis, 2.64 years; psychoses with other disturbances of circulation, 2.22 years; psychoses with convulsive disorders (epilepsy), 7.29 years; senile psychoses, 5.10 years; involuntional psychoses, 7.80 years; psychoses due to other metabolic diseases, etc., 5.27 years; psychoses with organic changes of the nervous system, 6.69 years; psychoneuroses, 2.99 years; manic-depressive psychoses, 5.80 years; dementia praecox, 14.67 years; paranoia and paranoid conditions, 4.21 years; psychoses with psychopathic personality, 7.96 years; psychoses with mental deficiency, 6.81 years; and undiagnosed psychoses, 3.69 years. The average duration of hospital residence of the cases without psychosis was 7.68 years.

A study has been continued of the 6,368 consecutive admissions to this hospital for the ten-year period beginning October 1, 1920. All deaths and transfers in this group having been excluded, as they represent an uncompleted hospital residence, the total number of cases for analysis on October 1, 1935, at the expiration of four years after the last admission, is 3,468. Of this number, 20.85% were discharged after a residence in the hospital of thirty days or less; 47.29%, after six months or less; and 59.60%, after one year or less. It is interesting to note that of the above 3,468 consecutive admissions 21.71% remained in the hospital after a residence of five years or more, and 9.34%, after a residence of more than ten years. The recovery rate shown in this group of cases is 20.01%. Of the cases discharged as recovered, 74.36% had a hospital residence here of one year or less.

An analysis of 6,140 consecutive admissions to this hospital for the fifteen-year period beginning October 1, 1920, and ending September 30, 1935, excluding deaths and transfers, shows a recovery rate of 15.91%.

The general information relating to the ward service shown in the following table should be of interest:

	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Percentage</i>
Average daily population . . . . .	935.60	1,361.20	2,296.80	100.00
In bed . . . . .	109.95	176.07	286.02	12.45
In restraint . . . . .	4.36	31.90	36.26	1.58
In seclusion . . . . .	8.12	15.01	23.13	1.01
Congregate dining room . . . . .	761.97	747.60	1,509.57	65.72
Eating in wards . . . . .	173.63	613.60	787.23	34.28
Fed by nurses . . . . .	14.36	101.64	116.00	5.05
Idle . . . . .	441.10	670.00	1,111.10	48.37
Employed . . . . .	494.50	691.20	1,185.70	51.63
Parole of grounds . . . . .	107.01	8.94	115.95	5.04
Out for exercise . . . . .	825.21	655.02	1,480.23	64.44
Noisy . . . . .	49.14	276.27	325.41	14.17
Violent . . . . .	.01	36.73	36.74	1.60
Destructive . . . . .	17.84	187.52	205.36	8.94
Soiled or wet . . . . .	104.44	221.73	326.17	14.20

	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Percentage</i>
Taking medicine . . . . .	65.94	27.89	103.83	4.52
Epileptic . . . . .	14.00	19.00	33.00	1.44
Tuberculous . . . . .	22.66	44.61	67.27	2.93
Infirm . . . . .	366.83	439.73	806.56	35.11

The average daily population for the entire year is represented in the percentage given above, that is: the average daily number of patients in bed was 286.02, or 12.45 per cent of the average daily number of patients in the wards of the hospital for the year, and the average daily number employed was 1,185.70, or 51.63 per cent of the same average daily population. The fact that over 35 per cent of the population of this hospital is of the infirm type should be noted when considering the number of patients out for exercise and the percentage employed in useful occupations.

#### GENERAL HEALTH OF THE HOSPITAL

During the year, the general health of the patients and employees has been good. In January and February a large number of grippe colds developed, but without serious results. In April and May there were eight cases of German measles. Those affected were one woman physician, a physiotherapist, two female attendant nurses, two male attendant nurses, one housemaid, and one male patient. In August one of the physicians and a charge attendant nurse in West F-2 had mild attacks of mumps.

As usual, some of the patients have suffered minor injuries during the year, and accidental falls of feeble and aged patients have resulted in fractures of bones. All of these occurrences have been reported in the usual manner to the Board of Trustees and to the Department of Mental Diseases.

Whenever an accidental injury of any kind has been sustained by any employee, the circumstances have been reported in the usual form to the Department of Industrial Accidents.

Examinations for Wassermann reaction have been made for us as in the past several years by the State Department of Public Health, as follows: blood serum, 827 (8 Wassermann and 819 Hinton), and cerebrospinal fluid, 179, making a total of 1,006 examinations. During the year, 606 treatments for neurosyphilis were given to 56 patients — an average of 10.82 treatments per patient. A full account of this work is given elsewhere.

#### EMPLOYEES

On September 30, 1934, there were 528 persons employed in the hospital. During the year, 235 were appointed, 171 resigned, and 54 were discharged. The average daily number of employees during the year was 536.04, with 1.10 per cent of vacancies, and the average daily number in the ward service was 321.73, with an excess of 1.81 per cent. This is due to the fact that extra ward employees were appointed on account of the 48-hour-per-week schedule, which is noted elsewhere. The ratio of ward employees to patients was one to 7.32, and of all employees, one to 4.35. On September 30, 1935, 591 persons were employed in the hospital.

The total number of visits to patients during the year was 81,446, the maximum number on one day being 1,148. It will be readily understood that this large number of visitors requires a great deal of attention from the attendants and nurses.

#### MEDICAL SERVICE

There have been few changes in the medical staff of the hospital during the year. On June 1, 1935, Dr. Carl E. Trapp, who was appointed assistant physician on June 19, 1933, was promoted to senior physician. Dr. Lillian D. Chapman, who has been an assistant physician here since July 1, 1930, resigned on November 2, 1935, to enter private practice. To fill this vacancy, Dr. Margaret R. Simpson was appointed assistant physician on November 4, 1935. Dr. Simpson was born in Roxbury, Massachusetts. She received the degree of B. S. in 1929 from Simmons College, and her medical degree in 1934 from the Boston University School of Medicine. She served a rotating internship of twelve months at the Englewood Hospital, Englewood, N. J., and was junior intern for three months at the Worcester State Hospital.

At the beginning of the year, Dr. Alexander J. A. Campbell was appointed consulting surgeon, and Dr. Trygve Gundersen succeeded Dr. Paul A. Chandler as consulting ophthalmologist. In July, the members of the Macausland Clinic were added to the visiting staff as consulting orthopedists. They are Dr. W. R. Macausland, Dr. A. R. Macausland, and Dr. H. G. Lee, of 412 Beacon Street, Boston. Patients requiring surgical attention have been visited frequently and the necessary operations performed by Dr. Irving J. Walker, Dr. Alexander J. A. Campbell, and Dr. Grace E. Rochford. The consulting internists, Dr. William E. Preble and Dr. Albert Evans, have responded to calls when their services were needed, and several patients have been examined by Dr. Myerson, the consulting neurologist. Dr. Cummins has been consulted regarding treatment of skin conditions requiring attention, and Dr. Edwin H. Place has been consulted whenever there has been any suspicion of contagious disease. The routine examinations of new admissions have been made in the eye clinic, and the ear, nose, and throat clinic, and the necessary treatments carried out. The former has been in charge of Dr. Trygve Gundersen, with 656 patients examined by him and 63 by Dr. Chandler, and the latter in charge of Dr. Donald H. Macdonald, with 592 patients examined.

The following articles have been published during the year by Dr. Purcell G. Schube:

"Further Observations on the Colloidal Carbon Flocculation Test in Spinal Fluid." *Jour. Lab. and Clin. Med.*, 20: 314-315 (Dec.) 1934.

"The Stability of Sugar in the Cerebrospinal Fluid." *Jour. Lab. and Clin. Med.*, 20: 752-753 (April) 1935.

"A Study of the Value of Bancroft's Views on Mental Disease." *Am. Jour. of Psychiat.*, 91: 1403-1408 (May) 1935.

Clinics in psychiatry were given to the class in sociology of Northeastern University by Dr. Schube on January 10th and 14th, February 21st, March 14th, and May 27th, with Dr. McManamy assisting at the March clinic.

On March 8 Dr. Trapp gave a clinic in psychiatry to the third year students of the Boston University School of Medicine, and in October, 1935, weekly clinics in psychiatry were given to these students by Dr. Houser, Dr. Osgood, Dr. Schube, and Dr. LeDrew. Fourth year students from the same university were given a clinic in psychiatry by Dr. Houser on November 12, and weekly clinics in neurology by Dr. Trapp beginning October 25th. During April and May, clinics were given in psychiatry to third year students from Tufts College Medical School, three by Dr. Houser, two by Dr. Osgood, and one by Dr. Roy D. Halloran. On October 17th, Dr. LeDrew gave a clinic in psychiatry to third year students from the Middlesex College of Physicians and Surgeons. On January 7th, Dr. Osgood gave a clinic in psychiatry to student nurses from the Massachusetts Memorial Hospitals. Dr. Houser gave clinics in psychiatry to the student nurses from the Cambridge Hospital on March 26th and April 4th, and Dr. Osgood on April 2nd. On May 7th, Dr. Schube gave a clinic in psychiatry to student nurses from the Beth Israel Hospital. On April 6th, Sister Elizabeth Frances and Sister Marie with a group of eight students from Regis College, Weston, were addressed by Miss Armstrong, head social worker. On April 16th, a group of nurses from the Cambridge Hospital were given demonstrations in tonic treatments by the hospital hydrotherapists at the Psychiatric Clinic.

During the school year, two fourth-year students from the Boston University School of Medicine, and two fourth-year students from the Tufts College Medical School have spent a month each at this hospital as interns. Two house physicians from the Peter Bent Brigham Hospital now spend four months each at the hospital, taking a course in clinical psychiatry, which is noted elsewhere in this report. During the summer months, four clinical assistants were added to the staff as usual.

Regular staff meetings have been held as usual throughout the year, except during the summer months. Two of these are held weekly at the Psychiatric Clinic, and one weekly at the East Group and at the West Group, with one meeting a month at the pathological laboratory. An effort is made to present at these meetings all new admissions and all cases about to leave the hospital on visit or to be discharged.

The venereal clinic was conducted during the year by Dr. Frederick LeDrew with the assistance of Dr. Winthrop B. Osgood. Student interns from Boston



University School of Medicine and from Tufts College Medical School were given an opportunity to participate in the work and were instructed in the various phases of syphilotherapy. During the year, 520 intravenous injections of tryparsamide were given to 37 men and 11 women. Eighty-six intravenous injections of nearsphenamine were given to 3 men and 5 women. In three patients a diagnosis of psychosis with other forms of syphilis of the central nervous system, meningo-vascular type, was made; two of these remained unchanged and one became worse. One patient diagnosed as alcoholic psychosis, acute hallucinosis, showed considerable improvement. Two cases, with an undiagnosed psychosis in each case, improved considerably during the course of a few months' treatment. Of the 48 cases of psychosis with syphilitic meningo-encephalitis, six died, two became worse, eighteen showed no change, and twenty-two were somewhat improved. Four of this group were discharged, two being improved and two having shown no change. One was taken home on trial visit somewhat improved, and one escaped from the hospital, his condition having shown some change for the better. Treatment was discontinued during the year in thirteen cases of psychosis with syphilitic meningo-encephalitis because it was felt that they would not profit by further therapy.

#### RESEARCH DEPARTMENT

The work of the laboratory under the Division of Psychiatric Research of the Department of Mental Diseases has been carried on during the year with Dr. Abraham Myerson as Director, and the following personnel: Dr. Leo Alexander, research neuropathologist; Dr. Julius Loman, associate research psychiatrist; Dr. William Dameshek, research internist; Mollie S. Levin, secretary; Caroline Stephenson, biochemist; David Goldman, physicist; Catherine M. Burke, research pathological technician; and Ruth Lambert and Priscilla Hamill, volunteer workers. A three-year grant of \$41,000 from the Rockefeller Foundation for work to be undertaken in this laboratory is noted elsewhere in this report. Early in March the new laboratory and research building was opened and the laboratory moved from the West F Building to its new quarters.

The work of the research division during the year may be divided as follows:

I. A great deal of time was given by Dr. Alexander, Miss Levin, and the Director in preparing a report for the American Neurological Association on sterilization. The report is a comprehensive one and takes up, first, the general question of whether or not there is a biological increase in mental disease and deficiency as shown by commitment rates, death rates, divorce rates, and survival and reproductive rates generally speaking. This report shows definitely that the biological background for mental disease and deficiency is such that no increase is to be expected, and, in fact, a decrease would naturally follow the operation of these biological forces. The report goes on to consider then the work done in the field of dementia praecox, manic-depressive psychosis, feeble-mindedness, epilepsy, crime, and concludes that there is a hereditary factor operating in the case of feeble-mindedness and less certainly in the case of dementia praecox and manic-depressive psychosis. There is no conclusive evidence that there is a hereditary factor of any kind in epilepsy. Concerning crime, it may be stated that nothing approaching proof has been adduced to show that heredity is an important factor in the production of crime. As a result of the study, the report recommends a very limited sterilization law, voluntary in character and to be enforced only on mature consideration of each individual case.

II. The neuropathological work of this division is carried out by Dr. Alexander, and during this past year we have been principally concerned with the results of microincineration. This term applies to a method by which the organic substances of the nervous system are burned away leaving only the minerals, and these are left in the position which they normally occupy within the cellular and fibrillar structures. We believe it can be definitely stated that a new and fundamental approach to the pathology of the nervous system has thus been opened. For example, it appears that, contrary to the earlier conception, the minerals take an active part in the cellular life; that arterial softening processes are marked by a diminution of mineral substances; and that inflammatory processes are associated with an increase of minerals. New growths show as part of their activity an increase in the mineral content of their cells, whereas in multiple sclerosis there is a de-

mineralization of the lesion. In senile dementia, where the so-called senile plaques form an important part of the pathological picture, the minerals are neither increased nor decreased, contrary to the former ideas on the matter. It is impossible in a report to indicate the great importance of these facts. They seem to us to point in a way to a new approach to the pathology of the brain and the nervous system generally.

Work on the actual chemical constitution of the brain has been started with the advent of the new equipment, but we are not at all ready to make any statements on results.

III. Pharmacological work has been carried out in the laboratory, especially on those drugs which profoundly influence the nervous system. Thus, a study has been finished on meholin. A second study has been started on the drug known as benzedrine. An important phase of the activity of this drug is this — that the blood pressure is raised and remains elevated for a considerable period of time, and a low blood pressure may be elevated to a considerable height by the use of benzedrine over a period of days. Moreover, the blood pressure, which tends to fall during amylal anesthesia, may be maintained at a normal height by the prior administration of benzedrine. While this effect of benzedrine does not apply directly to any of the problems of psychiatry, we are quite certain that it applies to the problems of medicine in general and certainly to surgery, and have arranged to carry on collaborative studies with internists and surgeons with respect to those conditions in which heart and circulatory failure produce death.

For the time being, the laboratory has ceased to study the intracranial pressure. We have reached a point where we can very definitely state what the important factors are and have read several papers on the subject which are now being printed. We believe this work has been fundamental in its approach to the problem of intracranial dynamics.

A method of visualizing the cerebral arteries and veins was developed in this laboratory. It depends on the use of thorotrast injected into the carotid artery. Some very beautiful plates have been obtained by this, and much interest has been manifested by others.

IV. The Director has carried on clinical studies together with Dr. Schube of the hospital staff. These have just been started, and we have nothing to report on our work at the present time. However, the approach in this collaboration is directly psychiatric, in that we are attempting to deal at first hand with the diagnosis and care of the mental diseases.

The Director has been appointed by the Commissioner of Mental Diseases as Chairman of a State Committee to sponsor and stimulate research in the State hospitals. We are arranging to give teaching courses at the Boston State Hospital which will be open to members of the staffs of other institutions who are interested in certain of the research techniques and subjects. This work takes up considerable time, but it imposes a sort of leadership on the Boston State Hospital which cannot be declined.

The following papers were published during the year:

Loman, Julius: "*Progress in Neurology in 1933.*" N. E. Jour. of Med., 212, 1:13-25 (Jan. 3) 1935.

Dameshek, W., Myerson, A., Stephenson, C.: "*Insulin Hypoglycemia.*" Arch. of Neurol. and Psychiat., 33:1-18 (Jan.) 1935.

Myerson, A.: "*A critique of proposed 'ideal' sterilization legislation.*" Arch. of Neurol. and Psychiat., 33:453-463 (March) 1935. (Read at Sixtieth Annual Meeting of American Neurological Association, Atlantic City, N. J., June 6, 1934.)

Loman, J., Myerson, A., and Goldman, D.: "*Effects of alterations in posture on the cerebrospinal fluid pressure.*" Arch. of Neurol. and Psychiat., 33:1279-1295 (June) 1935. (Read by title at the Sixtieth Annual Meeting of the American Neurological Association, Atlantic City, N. J., June 6, 1934.)

Myerson, A. (Chairman): "*Report of the Committee of Sterilization*", American Neurological Association, June 9, 1935. (Read at Annual Meeting of American Neurological Association, Montreal, Canada, June 5, 1935.)

Myerson, A.: "*Hysterical paralysis and its treatment.*" J. A. M. A., 105, 20: 1565-1567 (Nov. 16) 1935.

The following papers are in press:

Loman, J., and Myerson, A.: "*Visualization of the cerebral vessels by direct intra-carotid injection of thorium dioxide (thorotrast).*" (Am. J. of Roent. and Radium Therapy.) (Read at 61st Annual Meeting of American Neurological Association, Montreal, Canada, June 3-5, 1935.)

Myerson, A. (Chairman): "*Summary of the Report of the American Neurological Association Committee for the Investigation of Sterilization.*" (Am. J. of Psychiatry)

Loman, J., and Myerson, A.: "*Studies in the dynamics of the human cranio-vertebral cavity.*" (Am. J. of Psychiatry) (Read at the 91st Annual Meeting of the American Psychiatric Association, Washington, D. C., May 13-17, 1935.)

Loman, J., Dameshek, W., Myerson, A., and Goldman, D.: "*Direct intra-arterial blood pressure readings in man. II. The effect of alterations in posture upon the carotid, brachial, and femoral pressures. III. The effect of alterations in posture upon the carotid blood pressure in arteriosclerosis, during syncope, and following the use of vasodilator drugs.*" (Arch. of Neurol. and Psychiat.)

Myerson, A.: "*Relation of trauma to mental diseases.*" (Am. J. of Psychiat.) (Read at 91st Annual Meeting of the American Psychiatric Association, Washington D. C., May 13-17, 1935.)

Loman, J.: "*Progress in Neurology in 1934.*" (N. E. J. of Med.)

In addition to the above, a paper was read at the meeting of the Boston Society of Psychiatry and Neurology on November 21, 1935, entitled "*Mineral contents in cerebral lesions as demonstrated by the microincineration method.*" by L. Alexander, A. Myerson, and D. Goldman.

#### SOCIAL SERVICE DEPARTMENT

The social service department has been conducted for the past year by Miss Florence E. Armstrong, head social worker. One resignation occurred on June 1st, when Miss Ruth Stolworthy accepted a position at the Massachusetts General Hospital. This vacancy was filled later by the appointment of Miss Esther Coleman. Miss Coleman has received both her bachelor's and master's degrees at Boston University and has done case work under the E. R. A. in Newton. Two students taking the State Hospital Training Course were with us throughout the academic year, and one entering in February remained until June 1st with the others. One of those who entered in September, 1934, left during the winter to take a paid position in Ohio. In September, 1935, we began our academic year with three students, one of whom resumed the training which was suspended in June. One has come from the New England Home for Little Wanderers, where she worked after graduation from the University of New Hampshire. The third has received her bachelor's degree from the University of Maine and her master's degree from Cornell.

All students are trained from the beginning to be of immediate practical use in the hospital, but they are also instructed in the technique and methods of case work. They are given all the advantages which the hospital affords in the way of lectures to other student groups.

It is the practice of the department to investigate and study as a routine matter all cases admitted to the hospital for observation under the provisions of Section 77, Section 100, and Section 104, of Chapter 123 of the General Laws. Occasionally a case is referred for study which comes under the provisions of Section 99. During the year, we have had one of the latter. We have made full social investigations on 87 cases under Section 77, 17 cases under Section 100, and 3 cases under Section 104. Although it is always true that no patient can be fully understood as a personality except against the background of his social environment, recognition of this fact is particularly important in our observation cases, since the symptoms are acknowledged as not clear upon admission, and thirty days on the wards constitutes but a brief acquaintance with the patient.

Contributions to the "Psychiatric News" were submitted with the hope of making social service more correctly understood by the hospital itself. Staff conferences, including the members of the department and two physicians from the Psychiatric Clinic, were held for the purpose of formulating plans to assist patients in adjusting themselves, with their peculiarities, to their social environment upon

returning to their homes and places of occupation. This, we believe, is the most distinctive contribution of hospital social service to the field of hospital and social work.

The year ends with the feeling that the scope of social service in the hospital is too little understood — that it should not be, properly speaking, merely a matter of bringing in diagnostic material to supplement physicians' studies on patients within the hospital. It should extend, with the enthusiastic cooperation of the medical staff, to every patient who leaves the hospital restored partially or completely to mental health. This goal can only be glimpsed so long as a small corps of social workers must cover the needs of a population of 2,300 or more patients, but it is of primary importance in hospital social service that it is a goal which should never be lost from sight.

The following table shows the movement of patients under supervision and the social work done during the year:

	<i>Males</i>	<i>Females</i>	<i>Total</i>
In family care September 30, 1934 . . . . .	0	10	10
On visit September 30, 1934 . . . . .	102	116	218
On escape September 30, 1934 . . . . .	3	0	3
Dismissed to family care during the year . . . . .	0	15	15
Went out on visit during year . . . . .	929	234	1,163
Escaped during the year . . . . .	9	0	9
Admitted from family care . . . . .	0	8	8
Admitted from visit . . . . .	830	127	957
Admitted from escape . . . . .	7	0	7
Admitted from family care and discharged . . . . .	0	4	4
Admitted from visit and discharged . . . . .	90	102	192
Admitted from escape and discharged . . . . .	2	0	2
In family care September 30, 1935 . . . . .	0	13	13
On visit September 30, 1935 . . . . .	111	121	232
On escape September 30, 1935 . . . . .	3	0	3
New cases . . . . .	339	334	673
Renewed cases within the year . . . . .	16	48	64
Renewed cases from previous years . . . . .	25	56	81
Continued cases from previous year . . . . .	30	92	122
Cases closed during the year . . . . .	370	518	888
Cases continued to following year . . . . .	12	55	67

#### PATHOLOGICAL LABORATORY

During the past year the work of the pathological laboratory has been carried on, as in past years, under the direction of Dr. Naomi Raskin, pathologist, with the assistance of one laboratory technician and one volunteer worker. The following is a summary of the routine work of the pathological laboratory for the year: autopsies, 209; blood examinations — red counts, 210, white counts, 228, differential counts, 222, and hemoglobin estimations, 216; blood sugar estimations, 25; chest fluid examinations, 6; gastric content examinations, 8; icteric indices, 2; spinal fluid examinations, 206; sputum examinations, 127; stool examinations, 8; tissue sections — celloidin, 72, frozen, 434, paraffin: autopsy, 2,176, surgical, 47; and urinalyses, 1,627.

The number of deaths during the year was 367, 209 of which came to autopsy, making the autopsy percentage 56.95 for the year.

#### DENTISTRY

Dr. George S. Rileigh, the resident dentist, has carried on the dental work of the hospital throughout the year, with the aid of one dental assistant. A thorough examination of each patient is made within a few days after his admission, his condition carefully recorded, and various items requiring attention indicated on a chart. As in past years, the use of ether and nitrous oxide as general anesthetics has been continued in cases where a local anesthetic has been contraindicated. In the surgical extraction of teeth, the use of gauze drains, curetting of diseased tooth sockets, and suturing have been the regular procedure. As far as possible, an effort is made in this department to restore the mouth to a normal healthy condition.

Condensite plates are now being used instead of the old type rubber ones, and are a great improvement. The work accomplished during the year was as follows: examinations, 1,858; extractions, 1,590; fillings, 810, prophylaxis, 931; restorations, 584, and treatments, 1,529. The number of patients treated was 2,901.

#### HYDROTHERAPY

As in the preceding year, the work of the hydrotherapy department was carried on under the direction of Miss Mary F. Bresnahan, R.N., the work in the East Group being supervised by Mrs. Helena B. Hubbard, with Mr. Frederick Baril, a trained hydrotherapist in charge of the work on the male services. During the year, 8,469 continuous baths were given to 163 different patients — an average of 51.96 per patient, and a daily average of 23.20. There were 17,499 wet sheet packs given to 196 different patients — an average of 89.28 per patient, and a daily average of 47.97. Tonic treatments to the number of 8,574 were given to 104 different patients — an average of 82.44 per patient, and a daily average of 23.49. These treatments were as follows: salt glows, 608; saline baths, 289; neutral baths, 19; fomentations to lumbar region, 12; hot and cold to spine, 206; Sitz baths, 618; foot baths as preparatory treatments, 56; electric light baths, 74; hot full baths, 3; shampoos, 528; hair shampoos, 356; pail douches, 116; rain douches, 119; needle sprays, 2,354; fan douches, 1,772; and jet douches, 1,444. The following treatments were given to patients receiving packs in the East Group, needle sprays, 2,549; tub shampoos, 465; and hair shampoos, 465. The usual instruction was given during the year, there being 54 lessons. Two demonstrations of hydrotherapeutic procedures are noted elsewhere in this report.

#### SCHOOL CLINIC

There has been no change during the year in the personnel of the School Clinic staff. As in several years past, the work has been carried on by Dr. Alberta S. Guibord, psychiatrist, assisted by Edith B. James, B.A., psychometrist, and members of the hospital social service department under the direction of Miss Florence E. Armstrong. The educational tests were made by specially trained teachers, Mrs. Ruth B. Morse in Everett and Miss Winifred M. Ford in Somerville. Miss Rose J. Cairnes, visiting teacher in Somerville, did social service work for a substantial number of cases.

During the school year, 420 pupils in the public schools of Somerville and Everett were examined. The intelligence rating in these cases was as follows: superior, 1; normal, 54; dull normal, 86; borderline, 180; defective, 84; and undiagnosed, 15. The following recommendations were made: special class, 149; institution care, 12; other educational measures, 259. Pupils were referred to the clinic for the following reasons: retardation, 293, school problem, 25; behavior problem, 13; social, 4; personality, 18; physical, 12; and others, 65. Recommendations for medical attention were made as follows: general nutrition, 156; nose and throat, 113; dental, 114; visual, 78; hearing, 19; speech, 7; cardiac, 46; orthopedic, 38; neurologic, 10; anemia, 4; skin, 1; endocrine, 1; tuberculosis, 2, and plumbism, 1.

Encroachment on the services of the psychometrist by hospital and Juvenile Court examinations is still the major difficulty in this department. The school clinic receives approximately two and one-half of the five and one-half working days a week. This amount of time is not sufficient to cover our needs. If the school departments in the cities in which we work did not come to our assistance by lending us a psychometrist, our number of examinations would be substantially diminished. In the past school year we were again ably assisted in our psychometric examinations by Mrs. Ruth B. Morse in Everett and Miss Winifred M. Ford in Somerville. The school clinic is too important a part of the constructive social program of the Commonwealth to excuse the presence of an insufficient number of workers to carry out the work to the full measure of its possibilities. Its relation to the early detection of the potential delinquent and the potential psychotic is being recognized more and more. And more and more the school clinic is being asked to examine these predelinquent and prepsychotic pupils and to advise on their management. The elementary schools are asking for examination of the pre-school child. The junior high schools are asking for examinations to help in formulating a program for later education of its pupils. We need a full time psychometrist and a full time social service worker, and we urge such appointments.

## TRAINING SCHOOL FOR NURSES

Miss Mary Alice McMahon, R.N., Principal of the School of Nursing, has had charge of the nursing service of the hospital, as in several years past. In 1935, the training school for psychiatric nurses graduated 12 students. Since October, 1930, when this school was established, there have been 42 graduates, 33 of whom are still in the employ of this hospital. All of the pupils accepted are High School graduates, and the course is now open to men for the first time. The enrollment for the sixth year includes 68 in the junior class — 26 men and 42 women — and 24 women in the senior class. The practical work includes instruction and nursing care, in the wards, of patients suffering from the various types of mental disease. Special attention is given to the nursing care of patients showing symptoms of excitement, depression, confusion, suicidal and homicidal tendencies, and epilepsy. Each student receives special instruction in medical and surgical nursing, and practical work with acute and chronic bed cases. Practical instruction is also given in hydrotherapy, the preparation and serving of food, the preparation of surgical dressings, and assisting at operations, etc. Lectures, recitations, and demonstrations are held according to schedule. When the term of two years is completed, the pupils are thoroughly qualified, and they receive, if their conduct and examinations have been satisfactory, a certificate to that effect. The graduates of this course are added to the list of eligibles for promotion in the hospitals.

The systematic instruction of attendant nurses, both male and female, not enrolled in other training school classes, is being conducted along the lines prescribed by the Committee on Training Schools, representing the Department of Mental Diseases, and 242 have received such instruction during the year. We have now in the ward service five graduates of the Boston State Hospital Training School.

## OCCUPATIONAL AND INDUSTRIES

The work of the occupational therapy department has been carried on during the year under the direction of Miss Ethel M. Anderson, head occupational therapist, with nine occupational therapists under her supervision. Four resigned during the year, and three were appointed, leaving one vacancy. During the serious illness of one of the occupational therapists, a former worker filled in temporarily, and the senior psychiatric nurses have also assisted on the wards and in the classrooms, as part of their regular training. The average daily attendance of patients engaged in occupational therapy was 287. The maximum monthly attendance was 5,680, in January, and the highest number on one day was 357. We have been able in this department to keep in touch with all the patients at least once or twice a week, and daily contacts have been possible in the greater number of cases. With the growing feeling that Occupational Therapy includes much more than the handwork which at first glance is the evidence of busy-ness, the occupational therapy department has continued with the usual schedule during the past year, but has added to it a number of interesting activities. The chronic female patients of both the East and West Groups have very much enjoyed daily walks in groups about the grounds during a long season of good weather. Baseball and other such activities have been enjoyed by the male patients at the same time. A mixed chorus of male and female patients met weekly during the winter months. We have also cooperated with the director of physical education in a male gymnastic class, as well as instruction in tap dancing, etc., for the East Group female patients. These activities culminated in a May Day festival in the East Group chapel, given chiefly by the chronic patients at the close of the winter's work. The ordinary routine has also been followed. Male and female patients in the classrooms have been busy daily; weaving, hooking, crocheting, knitting, doing needlework, etc., for the women, and woodwork, basketry, painting, and knotting for the men. With few exceptions, every ward in every building has been represented in some form of activity. The aim at the Psychiatric Clinic has been more especially the return of the patient to normal living in the outside world at the earliest possible moment conducive to safety. Various normal interests have been offered as incentives, to groups as well as to individuals. Community singing, a marionette show with puppets made and operated by patients, model-making of airplanes, ships and locomotives by the men, bridge parties and dramatics, competitive ball games, the issue of a monthly hospital news sheet, and social affairs to celebrate events of local interest, are some

of these activities. Whenever possible, the male and female patients have worked together, under careful supervision, in as normal an environment as is consistent with safety. The estimated value of articles produced during the year was \$1,614.95 and of repairs, \$22.15, — a total of \$1,637.10.

Miss Elizabeth M. O'Connor had charge of the work of the industrial room for women until it was taken over by Miss Constance Crook who was appointed for that purpose on July 1, 1935. The patients are engaged in basketry, rug making, lace making, embroidery, knitting, crocheting, sewing, and mending. The estimated value of the articles produced in this department during the year is \$874.01 and in the sewing room \$14,802.65 (a total of \$15,676.66), exclusive of mending, the value of which is estimated at \$4,258.20, making a total of \$19,934.86. Mr. James F. Hurley has continued in charge of the industrial work for the men throughout the year, as in several years past. This work consists of shoe repairing and various other repair work, the manufacture of several kinds of brushes, brooms, coat hangers, hats, mattresses, pillows, and numerous other articles, and is carried on entirely in the basement of the B Building in the West Group. The estimated value of articles produced during the year is \$4,594.20, and of renovations and repairs \$3,166.50, a total of \$7,760.70. The estimated value of all articles produced during the year is \$21,885.81, and of renovations and repairs, \$7,446.85, making a total of \$29,332.66.

#### OCCUPATIONAL THERAPY CENTER AT CITY MILLS, MASSACHUSETTS

The Occupational Therapy Center at City Mills has continued under the supervision of Miss Florence E. Armstrong, head social worker. Mrs. Nellie Gay has the general care of the patients and Miss Isabel White has begun her second year in charge of the occupational therapy department of the Center. This department is inclusive of many activities. There is the customary handwork, which is now familiar to the hospital through the semi-annual sales and through orders taken at odd times during the year. The usual high standard of products has been well maintained, and prices have been extremely reasonable. The purpose of selling is not for profit, but to pay the patients a fair amount for their work and to give them the feeling that what they can do has a market value. Prices include this figure and cover the cost of materials. It is always surprising that women who have had almost no experience in performing work according to a definite standard of perfection glimpse that ideal so readily and so enthusiastically, and gain so quickly in their ability to reach it. There is no doubt that the credit for this lies in the quality of mind of the occupational therapist and in her approach to her patients. We have always been fortunate in this respect. Miss White has conducted classes in subjects such as arithmetic and spelling, as well. She reads aloud to the patients and encourages them to read to the group. This some of them take great pride in doing. There has been considerable group singing around the piano, and games of all sorts are the usual pastimes of the evenings. A radio which was installed a year ago is tremendously appreciated. The Center is used exclusively by the Boston State Hospital, and the number of patients ranges between eight and ten. It is a place to which some patients who have gone away return gladly when pressure of living in the outside world threatens their stability. Seldom do patients have to return to the hospital, but care is exercised constantly over their physical and mental health. Dr. Pease visits the Center from time to time through the year to supervise this. Several patients have returned to their homes and to their work. The period of residence at the Center enables the social worker to understand the patient's reaction to normal home life, and often to straighten out the tangles of a domestic situation to which a patient will some day have to return. This year's sales of handwork have brought in about \$300.00. Miss White has been successful in selling smocks at the School of the Museum of Fine Arts, and orders have been repeated.

#### AGRICULTURAL ACTIVITIES FOR THE YEAR

The work of the farm has continued throughout the year under the direction of Mr. Ralph B. Littlefield. A total of 110.63 acres was under cultivation. This consisted of 33 acres devoted to gardening and 77.63 acres of meadowland. The estimated value of farm products for the year was \$10,165.78.

## FINANCIAL STATEMENT

The maintenance appropriation for the year was \$935,730.00, with \$28,773.12 brought forward from the preceding year, making a total of \$964,505.12. The expenditures of the hospital for the year were as follows:

	<i>Amount Expended</i>	<i>Per Capita</i>	<i>Percentage of Total</i>
Personal Services. . . . .	\$499,140.31	\$216.145	53.727
Travel, transportation and office expenses . . . . .	7,595.97	3.289	.818
Food . . . . .	180,128.80	78.002	19.390
Clothing and materials . . . . .	28,350.02	12.277	3.052
Religious instruction . . . . .	2,080.00	.900	.223
Furnishings and household supplies . . . . .	34,374.50	14.885	3.700
Medical and general care . . . . .	19,804.42	8.359	2.078
Heat and other plant operation . . . . .	101,125.12	43.790	10.885
Farm . . . . .	5,749.21	2.490	.619
Garage and grounds . . . . .	11,820.26	5.119	1.272
Repairs, ordinary . . . . .	14,925.43	6.463	1.606
Repairs and renewals . . . . .	24,435.96	10.581	2.630
Total . . . . .	\$929,030.00	\$402.300	100.000

Based on the average daily population of the hospital, 2,309.28, the per capita cost of maintenance for the year was \$402.300, or \$7.737 per week. The per capita cost for 1934 was \$342.685, or \$6.590 per week.

## GENERAL OPERATIONS FOR THE YEAR

The Psychiatric Clinic of the Boston State Hospital was planned and constructed as a unit wherein individuals who are mentally ill, but not hopelessly so, can be cared for under the most ideal circumstances. The patients are not permitted to come into contact with those more unfortunate than themselves, and they are given treatment of a specific and individual nature designed to shorten the duration of the psychosis, which, under less favorable conditions, might linger indefinitely or be fixed permanently. That the Clinic in doing this was making a long step forward in the treatment of the mentally ill was a foregone conclusion, but that it could accomplish its objective was debatable. Two and one-half years have now passed since the Clinic ceased to be a possibility and became a living institution. That it has made appreciable progress towards the accomplishment of its objective is an outstanding fact. The Clinic is, in reality, a thing of beauty, and those who are familiar with the usual institutional buildings and care of the mentally ill are at once impressed by construction which is economical and compact, design which is new, furnishings which are attractive, modern, and stable, equipment which is necessary and plentiful, and last, but not least, a personnel which is efficient and happy at its work. These factors, so universally neglected and so poorly appreciated by all who build and operate institutions, cannot fail to have a beneficial effect upon the individual patient. The individual, the patient, who, all of his life having been told of the horror of insanity and of the degraded and loathsome holes into which are thrust those who are so unfortunate as to become insane, naturally enters such an institution afraid and apprehensive, sometimes belligerent. When he enters the Clinic building he is struck by the beauty of the foyer, and the kindness of those who admit him, bathe him, and examine him. He sees a comfortable lounge, instead of dirty benches, and quite and apparently normal individuals seated about in it. He realizes that this cannot be the place he had originally pictured, but that it is a place of peace, of beauty — a haven wherein one could be happy were he not so sick. Here the doctors have time to have long talks with him and to help him to solve the problems which seemed insurmountable. He (or she) receives a haircut, a shave, a finger wave, or a manicure in a real barber shop. His teeth are cared for by a dentist who works carefully and gently. If he becomes disturbed, he finds no chains, bars, nor tin dishes, but soothing warm water in tubs, or, maybe, packs. If he lacks energy or vitality he is not shoved around or shouted at, but is given steam baths, Swedish shampoos, needle sprays, fan douches, Sitz baths, or colonic irrigations. If he has bad joints or rheumatism,



there are the diathermy units to give him relief. If he has sore muscles, massage and infra red treatments are provided. If he is pale and has not had much sun, he may find himself becoming brown under the influence of ultra violet. His bad chest or abdominal complaints may be solved by careful X-ray or fluoroscopic examination. His slowness, irritability, or obesity may find its solution in a basal metabolism test. His physical problems solved, or at least cared for, he finds that he has been introduced to the occupational workers, who discover his abilities and utilize them, find his interests and arouse them, and offer him a variety of hobbies. Once a week, he goes to a picture show and sees a recent talking picture. Once a week he goes to church, if he wishes. In the summer he takes long walks, plays baseball, or learns how to plan and prepare soil for planting, to do grading, to cultivate plants, grass, and trees. In the winter he takes physical exercise under the direction of a physical director, learns to prepare soil, and to take care of plants and flowers in a greenhouse. Throughout the year he (or she) is taught bridge and art, plans and takes part in plays, plans and attends parties, and is encouraged to read books from a library which is kept as up-to-date as possible. He eats food, real food, carefully prepared and tastefully arranged for him three times a day in a cafeteria, the like of which he has seen only through plate glass windows — wanting, but not daring, to enter. The patient is given the best of care under the best of conditions, and acquires a new outlook on life, a new desire to recover and to become a useful unit of society. This outlook and desire, coupled with the treatment, materially shorten the length of the mental illness and increase the permanency of the recovery — and last, but not least, the fears engendered by morbid tales of insanity are gone. This story is not new to the staff of the Boston State Hospital. Once a month, in the medical library there is placed a new copy of the Psychiatric News, the mouthpiece of the hospital, wherein there is made, in addition to original articles of psychiatric interest by various members of the staff, a monthly report of the activities of the Clinic. Knowledge of its contents creates an intimate familiarity with psychiatric treatment in its most promising and sensible form.

The work of the physiotherapy and X-ray departments was continued during the year by Miss Gertrude E. Gray, a trained physiotherapist and X-ray technician. This was all done in the Psychiatric Clinic. When necessary, patients are taken from other parts of the hospital to the Clinic for these particular types of treatment and examination. Ultra violet ray was used in various skin diseases as well as for its general tonic effect. Muscular and neuritic conditions were treated with infra red ray and diathermy, the latter also being used in psychoneuroses for its psychic effect. The application of sinusoidal current met with some success in chronically constipated cases. Some massage was given to individuals with nerve injuries, and was used also in some cases of muscular strain. The most successful forms of therapy were the applications of different types of electric current, as in painful neuritic and arthritic states, and ultra violet ray in skin diseases, especially acne. During the year, 2,342 treatments were given, 1,561 to male patients and 781 to female patients. The total number of different patients treated was 95, 56 male and 39 female. The treatments were as follows: ultra violet ray, 1,385; infra red ray, 113, diathermy, 420, sinusoidal, 268, massage, 144; and autocondensation, 12. The total number of X-ray examinations was 338, and the total number of fluoroscopic examinations, 75.

Since the first of January, there have been 44 patients enrolled in the weekly art class, which is conducted by Mr. Joseph G. Cowell in the Psychiatric Clinic. Of this number, 21 have been returned to their homes, 19 are still in the Clinic, and 4 have been transferred. Eighty per cent of the class are women. A detailed record is being kept which shows the reactions of each patient, recording such matters as choice of subject, quality of emotion exhibited in the work, varying qualities and clarity of thought, facility of expression, rate of progress, and ability to cooperate. It is hoped that data may hereby be obtained which will be of value in checking up with the regular methods of diagnosis.

In addition to the usual showing of motion pictures and occasional dances held during the year, the patients were entertained at various times by units under the E. R. A. On December 5, 12, and 19, entertainments were given at the East Group chapel by members of the American Federated Actors. Unites 3, 4, 5, and

6 of the E. R. A. Vaudeville Project furnished entertainments on January 9, 16, 23, and 30, and vaudeville performances were given by groups of E. R. A. entertainers on February 6 and 27, March 27. and April 5, 11, and 18. On Christmas Eve there was the usual concert in the East Group chapel, which was decorated with greens for the season. The program was given by a trio consisting of violin, cello, and piano, assisted by a baritone soloist. Starting out at 5.30 on Christmas morning, a group of psychiatric nurses and attendant nurses visited all the wards of the hospital except the Psychiatric Clinic, singing carols. Religious services, both Protestant and Catholic, were held on Christmas morning, and gifts were distributed to the patients by the occupational therapists. A turkey dinner was served to all the patients and employees of the hospital. The annual Field Day was given by the Employees' Club at the West Group on June 28th. There was the usual program of games and athletic events for both patients and employees, with prizes, and peanuts, doughnuts, ice cream, and tonic were served. Patients from the East Group were brought in Boston Elevated busses. Music was furnished by the American Legion Band of Milton, and the day was very much enjoyed. On Thanksgiving Day a special turkey dinner was served throughout the hospital.

The various religious services have been in the charge of Rev. Frederick G. M. Driscoll, Rev. Harold Cramer, Rev. Frank L. Stedman, and Rabbi Moses L. Sedar through the year, and we wish to express to them our appreciation of their continued interest in the welfare of the patients.

The following painting was done during the year: —

*East Group:* interior of East B Building, interior and exterior of storehouse and bakery, and renovation of the interior of the East C Building.

*West Group:* interior of West C-1, West Congregate Dining Room, and garage, and part of the basement of West G Building; thorough renovation of West A dining room; exterior of West G Building, including windows and window guards.

The outside trim and several rooms in the basement of the administration building were painted; also the interior and exterior of the officers' cottages. The interior of West A Building and Ward 4 of West F Building were painted by patients.

The following work was done by the carpenters and masons during the year: A glass frame was made to cover the model of the institution. Shafting was erected for the installation of power machinery in the new carpenter shop. A new floor was laid in the horse barn, and necessary repairs made to the farm barns. A portion of the back stairway in the Superintendent's house was re-lathed. An addition to the garage in the West Group was erected. The old summer house on the grounds of the West Group was renovated by the carpenters and painters. The areaway at the East C Building was reconstructed and made frost-proof. Twenty clothes racks were made for the laundry. The roof of the garage was sheathed, and the masons poured the floor in October. Ceilings were repaired and replaced where necessary, and much cement work done on sidewalks.

In the spring, the sum of \$1,000 was expended for trees, which were set out in various places on the grounds, the greater number of them at the West Group and around the Psychiatric Clinic.

Under the heading of Repairs and Renewals, the steam line, West Loop, and the steam line from Pit 14 to Pit 16 were replaced during the summer.

A road to the new laboratory and research building was completed in February, being surfaced at that time with cinders, which were replaced by crushed stone in the spring.

The new road past the Psychiatric Clinic to the West Group was opened for use on June 14th.

A new road and sidewalk to the tuberculosis pavilion have been constructed, and that building can now be reached from both front and back, so that it will be possible to occupy it as soon as equipment is available.

The appearance of the grounds around the Psychiatric Clinic has been much improved by the grading which has been done there.

The grading of the site of the old administration building in the East Group was completed in November.

Excellent progress has been made on the road-building and grading operations at the new Male Employees' Building in the West Group.

All of the electricity in the institution has been changed from the direct to the

alternating current, including wiring where necessary, and all of the motors in the East Group as well as in the new carpenter shop are now operating on alternating current. This work was completed in April.

The continuous bath tubs in the second floor of the East B building were removed in March, and the space has been fitted up for use as a pack room.

Owing to settling of the building, or some other unfortunate condition which was difficult to determine, there was a bad crack in the walls at the west end of the Psychiatric Clinic. This was repaired during the month of March and there is every reason for believing that the building is in excellent condition at the present time.

I regret to say that the foundation of the veranda on the East C Building has been cracked to such an extent that it is not safe to use. We have not as yet been able to obtain an item in the supplementary budget for the necessary repairs.

The work of cleaning out the Canterbury Branch of Stony Brook has been carried on under the E.R.A. during the summer and is still in progress.

The Boston State Hospital has had six E.R.A. projects in operation during the summer and fall. Two of these have been completed and the remaining four are still in progress. They are as follows:

*No. 2235 B 15 — 348.* — Taking down the remains of the old administration building and grading the site. This project began on June 6, 1935, and the work is being completed under W.P.A. 64-14-507, employing 34 men. The E.R.A. project employed an average number of 35 men.

*No. 2235 B 15 — 368.* — Grading 120,000 square feet, and building 900 feet of sidewalks and 1,800 feet of road to the new tuberculosis pavilion. This project began on June 27, 1935, and is being continued under W.P.A. 65-14-3227, employing 46 men. The E.R.A. project employed an average of 65 men.

*No. 2235 B 15 — 369.* — Grading 100,000 square feet, and building 900 feet of road and 1,000 feet of sidewalks to the new Male Employees' Building. This project began on June 27, 1935, employing an average of 65 men. The work is being completed under W.P.A., employing 63 men.

*No. 2235 B 4 — 505.* — Cleaning and painting the interior of East A Building and its basement. This project began on November 21, 1935. The work is being completed under W.P.A. 65-14-3227, employing 34 men.

*No. 2235 B 15 — 349.* — Grading of grounds and building sidewalks to three new officer's cottages. This project began on June 6, 1935, and was completed on October 21, 1935. The average number of men employed was 25.

*No. 2235 B 4 — 347.* — Cleaning and painting farm barns, wagon sheds, horse barns, farmer's house, and piggery sheds. This project began on July 3, 1935, and was completed on October 31, 1935. The average number of men employed was 10.

Under the provisions of Chapter 249 of the Acts of 1935, the hospital was allowed \$13,000 to complete the iron fencing around the institution; \$3,100 for road-making; and \$26,800 for the installation of sprinklers in attics, stairways and basements of the stucco buildings. We were also allowed \$2,700 for two automobiles one to replace the Nash and one to replace the DeSoto; \$650 for a small truck to replace the one used by the head farmer; and \$1,400 for the purchase of an additional tractor. An item of \$2,000 in the amount allotted for Repairs and Renewals made it possible for us to provide for an addition to the garage in the West Group, — something that was very badly needed.

The Department has approved of the action of the Board of Trustees in authorizing the removal of the old Fottler farm house as soon as the new Male Employees' Building in the West Group is ready for occupancy.

The officers' cottages in the West Group were completed and accepted during the month of May, and will be ready for occupancy early in December, the delay being due to the fact that it has been difficult to get the equipment, which is being furnished by the funds rendered available by the Federal Government.

The West Group Office Building was completed and accepted during the same month. It was not possible to occupy it at the end of the year owing to the delay in obtaining the equipment.

The tuberculosis building was completed during the month of September and only awaits the furniture and equipment to make it available for the reception of patients.

The laboratory and research building was opened on March 3rd. The pathological laboratory has been removed to that place from its old location in the East Group, which we were very glad to abandon, as the old building was in very bad condition. The physiological laboratory operated by the Department under the direction of Dr. Myerson in the West F Building was also removed to the new building.

The work of remodelling the power house was practically completed as the year ended and we now have available for use four 400 horse power boilers and three generators, one 200, one 300, and one 400 watt.

There was a fire in the roof of the third floor of the East F Building at 8:30 P.M. on September 15th, due to a short circuit in the attic. The patients were all removed to other buildings in the East Group without mishap of any kind. The necessary repairs were made, at a cost of \$3,900, under the heading of Repairs and Renewals, and the building again occupied by patients on November 1st.

On September 3, 16 women patients were transferred to the Metropolitan State Hospital, and 34 women patients on September 26 to the same institution, making a total transfer of 50 patients.

At a meeting of the Executive Council of the Rockefeller Foundation held on December 21, 1934, a grant was made to the Department of Mental Diseases to provide funds for the research work to be done at the Boston State Hospital under the direction of Dr. Abraham Myerson. This will include a total of \$41,000, covering a period of three years, which will be available for salaries. Under this grant, funds will be provided for not to exceed \$13,700 annually, in quarterly installments of \$3,425. The original P.W.A. allotment will cover all the equipment necessary in the building as far as can be determined at this time. An account of the research activities carried on under this grant will be found on another page of this report.

At the request of Dr. Henry A. Christian, arrangements have been made for furnishing a course in clinical psychiatry at this institution to house physicians at the Peter Bent Brigham Hospital, two men to serve during a period of four months.

Under the provisions of Chapter 444 of the Acts of 1935, all of the employees of the hospital were put on a 48-hour-per-week basis beginning on October 25, 1935. This necessitated an increase of 160 in the personnel of the hospital. That allowance, however, will not be adequate to meet the situation properly. The hours of duty for ward employees are now as follows: 7:00 A.M. to 12:00 N., and 12:30 P.M. to 3:30 P.M., or 7:00 A.M. to 12:30 P.M., and 1:00 P.M. to 3:30 P.M.; 2:30 P.M. to 5:00 P.M., and 5:30 P.M. to 11:00 P.M., or 2:30 P.M. to 5:30 P.M., and 6:00 P.M. to 11:00 P.M.; 11:00 P.M. to 7:00 A.M.

The hospital has been visited by various representatives from the Department of Mental Diseases during the year.

On November 6, 1935, Dr. Joseph E. Barrett, Assistant Commissioner, and eight members of the Joint Legislative Committee on Public Welfare visited the institution.

Several members of the Joint Legislative Committee on Ways and Means, accompanied by Mr. Carl A. Raymond, Budget Commissioner, visited the hospital on November 15, 1935.

#### DEVELOPMENT OF THE HOSPITAL

The following list of items for special appropriations for construction to cover the needs of the hospital for the next twenty-five years was submitted to the Department of Mental Diseases:

1. Assembly Hall . . . . .	\$192,000
2. Placing Electric Wires Underground, and New Steam Line from East to West Group . . . . .	121,500
3. Road Construction and Sidewalks . . . . .	200,000
4. Sewage and Surface Draining System . . . . .	25,000
5. Grading . . . . .	15,000
6. Laundry Equipment . . . . .	25,510
7. Three Officers' Cottages . . . . .	50,000
8. Garage for twenty-five cars . . . . .	30,000

9. Paint Shop . . . . .	16,000
10. Salvage Yard . . . . .	12,000
11. Recreation Building . . . . .	115,000
12. Industrial Building . . . . .	40,000
13. Additional Story on Laboratory Building . . . . .	23,000
14. Storehouse (farm equipment) . . . . .	10,000
15. Replacement of Stucco Buildings (\$2,357,500):	
East Group:	
a. East A Building, 76 patients . . . . .	175,000
b. East E and F Buildings, 200 patients . . . . .	490,000
c. East Kitchen and Dining Room Building . . . . .	265,000
d. Remodelling old East D.R. Building for storage purposes . . . . .	75,000
e. East Fire House . . . . .	6,000
West Group:	
f. West C Building, 170 patients . . . . .	435,000
g. West D Building, 170 patients . . . . .	435,000
h. West Staff House . . . . .	83,000
j. West Kitchen and Dining Room Building . . . . .	320,000
k. Temporary addition to present West Kitchen and Dining Room Building . . . . .	7,500
l. West Fire House . . . . .	6,000
16. Razing all old stucco buildings . . . . .	60,000
17. Remodelling Heating Plant, East G and West A Buildings . . . . .	14,470
<b>Total . . . . .</b>	<b>\$3,246,980</b>

*Assembly Hall.* — This is probably the only institution in the State that has no centrally located assembly hall for the use of patients. We have a small chapel in the West Group which accommodates approximately 225 patients, in a group housing over 1,700. This takes up space which is badly needed for other purposes, and it was built at a time when the West Group cared for about 300 patients. There is a small chapel building in the East Group, which is large enough for that part of the hospital alone, but is not adequate to the needs of the entire institution, with a population of over 2,200. The result of this arrangement is that a large number of our patients have to be brought over after dark from the West Group to the East Group for moving picture shows, dances, and other entertainments. Very frequently this results in escapes, the ward employees being unable to keep track of so many patients on the grounds, which are not adequately lighted on the way from the East Group to the West. Owing to these circumstances, there is a large number of patients who never have any opportunity to go to our entertainments at all. This state of affairs should be remedied by the erection of a centrally located assembly hall on the grounds of the West Group — one which will be of sufficient size for 1,200 people. It should, of course, be large enough to accommodate all the patients who can be taken to entertainments.

*Placing Electric Wires Underground, and New Steam Line from East to West Group.* — Electric current is generated at the East Group and the wiring for this Group of buildings is now underground. The high tension current for the West Group, one mile distant, is carried by overhead wires on wooden poles. This line crosses Morton Street, a much traveled highway. It is necessary to renew poles constantly, and during stormy weather in the winter the line breaks frequently, causing the major part of the institution to be in darkness. This is a very serious condition because there are over seventeen hundred infirm, sick, and disturbed patients occupying buildings in this Group. The crossing of the highway by this line is a potential danger to the public, and perhaps a greater danger to the patients who work in the grounds and fields through which this line runs. If the line were underground, all of these risks would be avoided.

The West Group is now supplied with steam through two mains, forming a loop. One of these is an 8-inch supply with a 3-inch return, while the other is a 6-inch supply with a 2½ inch return. Owing to the development of the institution and the increase in the number of buildings in the West Group, the present steam mains are somewhat overloaded for safe and economical operation. If there is any inter-

ruption of service in the 8-inch main (and this has occurred at various times in the past), the 6-inch line is not large enough to supply steam for heating, hot water, cooking, etc., during the winter. The return line is not large enough to carry the water condensation if one return is out of commission. Supplying heat for the 1,700 patients and 200 employees of the West Group is a matter of vital importance, and a new steam main should be put in, running directly from the power house in the East Group to the West Group, at the earliest possible opportunity. This would involve two items, as follows:

New trunk line from power house to Pit No. 18 . . . . .	\$55,000
Future extensions to Pits No. 12 and No. 20 . . . . .	17,250

Total . . . . .	\$72,250
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*Road Construction and Sidewalks.* — No appropriation has ever been granted for road construction at this institution. It has been necessary, therefore, to use cinders for all such work, and the result has been far from satisfactory from either an economic or a utilitarian viewpoint. There is a very large amount of travel over these roads, and during fair weather the dust stirred up by passing vehicles is a nuisance. During rainy weather, the cinders wash out, leaving deep ruts, which require almost constant repairs to make the roads even passable. Such construction as has been planned would practically end road repairs for all time.

No money has ever been appropriated for the construction of sidewalks leading from the city streets to the buildings of this institution. The roads during the spring and fall are very muddy, and during the winter are at times almost impassable for foot traffic, owing to slush and snow. There are about one hundred thousand visitors to the hospital yearly, a large proportion of them are pedestrians, and our own employees, about five hundred and forty in number, must use these roads to reach car lines. A large number of patients must travel between groups, a distance of more than a mile, to attend church services and entertainments.

*Sewage and Surface Draining System.* — The sewage system of the hospital is antiquated, and extensive changes should be made at as early a date as possible. There never has been any surface drainage system, the drain pipes around the various buildings running out to the adjoining lower levels of the hospital property. These should all be connected up into one system and empty into the Canterbury Branch of Stony Brook. The new buildings in the development of the hospital render these changes very necessary.

*Grading.* — It has been impossible to do the necessary grading at this hospital. This is due principally to the fact that we have a large population of patients of the infirmary type and a comparatively small number of able-bodied working patients. As a result, the grading has fallen far behind the new construction. Grounds about the buildings erected as long ago as 1920 still require some grading. Unless there is a special appropriation, it will be years before the grading around the new Psychiatric Clinic and the other new buildings will be accomplished.

*Laundry Equipment.* — The following laundry equipment is very badly needed:

Shirt unit:

2 cuff presses at \$250 . . . . .	\$500
1 collar and neckband press . . . . .	250
1 body and bosom press . . . . .	655
1 sleeve form press . . . . .	125
1 finishing table . . . . .	60

Presses:

Six air-driven presses as follows:

2 No. 52 presses at \$675 . . . . .	\$1,350
4 No. 5138 presses at \$575 . . . . .	2,300

Ironer:

1 6-roll 120-inch ironer complete with Hamilton spring padding and full vacuum features . . . . .	8,270
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Washers, 4 at \$3,000 . . . . .	12,000
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Total . . . . .	\$25,510
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*Three Officers' Cottages.* — The hospital has never had adequate facilities for living quarters for married couples. Additional cottages are very badly needed, and three more are requested at an estimated cost of \$50,000, total.

*Garage for Twenty-five Cars.* — No garage has ever been built for the hospital, as has been shown repeatedly. The building that we use for this purpose was designed originally for the boiler house for the West Group. It is entirely inadequate and we often have to leave some of the cars outside, exposed to the weather. We have not been able to furnish garage space to our doctors, who have to depend to a considerable extent on their own transportation facilities. We have a number of other employees, persons whose services are of great value to the institution, who have cars and use them very largely on State business without any reimbursement for this, and have no place in which their machines can be kept. I feel that it would be very decidedly to the advantage of the State to furnish them with garage space. The building we are now using is not large enough to properly accommodate the cars belonging to the State, and does not make it possible for us to offer facilities for officers and employees above referred to. It is not a desirable place for a garage, being located within 20 or 30 feet of the West Group staff dining room.

*Paint Shop.* — The present paint shop is located in the basement of the laundry building, the third floor of which is used as an industrial room. This is a violation of the laws of the State. The paint shop should be located in a separate structure and its presence in any of our existing buildings constitutes a fire menace which should be removed as soon as possible.

*Salvage Yard.* — The hospital has never been provided with a salvage yard. As the older buildings are torn down we have salvaged a lot of valuable lumber, but it has to stand outside subject to the summer rains and winter snows. This should all be stored where some protection can be afforded it. A salvage yard similar to those which have been provided for other hospitals during the last ten years or more is very much to be desired.

*Recreation Building.* — With the development of the hospital it is felt that a recreation building would constitute a very important addition to the present institution. It should contain a gymnasium, swimming pool, and space for other forms of recreation which would be of great importance in bringing about the restoration of recoverable cases to the community.

*Industrial Building.* — At the present time, our industrial work at the West Group is done in the basement of the women's infirmary building (West B), which has a capacity of 430 beds. The wards of this building are used for aged, infirm, and bed-ridden patients, a type which would be practically helpless in case of fire. The industrial shop in the basement beneath not only is too small for its purpose, but offers a serious fire menace in that it contains a large amount of inflammable material such as broom corn, reed, raffia, mattresses, etc. This arrangement has been criticized repeatedly by the Department of Public Safety and by the fire officials of the City of Boston. It cannot be defended, and should be remedied at the earliest possible moment. A building entirely separate from a ward building is the only satisfactory solution to this problem.

*Additional Story to Laboratory Building.* — With the elaboration of the research work which is going on here under the direction of the Department, it is already very obvious that at some time during the next twenty-five-year period a third floor should be added to the present laboratory and research building. It would be desirable to have this done during the next few years at the outside.

*Storehouse (farm equipment).* — This is necessary to protect the property of the Commonwealth. We have never had any place to store farm equipment, and much of it is left outside the year round, with the natural result that it deteriorates rapidly. A storehouse for this purpose would be a source of considerable economy.

*Replacement of Stucco Buildings.* — These stucco buildings have wooden floors, wooden stairways, an obsolete system of electric wiring, and cannot be provided with any adequate means of fire protection. The Fire Commissioner of the City of Boston has recommended "That all the old buildings, wooden and stucco covered, should be demolished and buildings of 1st class fireproof construction be erected in their stead. . . . These recommendations, which may appear extensive, are an urgent necessity and based on the nature of the occupancy, and the character of the construction which is hardly fit for persons of normal physical and mental

condition." These buildings constitute a fire menace and should, in justice to our patients, be removed and replaced by fireproof structures. They house over six hundred patients. One of the worst of the old stucco buildings is the West Group Office Building. Like all the others, it has wooden stairways and wooden floors. There are eleven female employees housed in the partly unfinished attic on the third floor. In replacing this building it will be desirable to build a West Group Staff House which will furnish kitchen and dining room facilities for all of the doctors of the West Group except those who will occupy cottages. It should also have accommodations for four physicians and six internes.

The West Group Kitchen and Dining Room Building has never been satisfactory. It would be very desirable to furnish cafeteria service to the patients who are eating in that place. As a part of the general replacement of the stucco buildings, a new Kitchen and Dining Room Building should be erected where the present West Group stucco office building is now located. Such an arrangement would make it possible for the male patients to go in through tunnels from both the West C and the West D Buildings.

When the old West Group Office Building is torn down, it will be necessary to provide accommodations for the fifty employees eating there. This can be done in the form of a temporary structure which can be removed when the new kitchen and dining room is completed, if this program is carried out.

The removal of the old administration building in the East Group will make it possible now to build a new Kitchen and Dining Room Building which can be connected by means of tunnels with the East F and the East A Buildings. This would put the kitchen and dining room building in a place where it should be. The present building has never been entirely satisfactory. It would also make it possible to remodel the existing Kitchen and Dining Room Building for the purpose of furnishing additional storage capacity adjoining the old storeroom. This is something that has been very badly needed for years. It has been necessary to store things in the basements of buildings — an undesirable arrangement which should be done away with as soon as possible. The old Kitchen and Dining Room Building would lend itself very effectively to this plan and would furnish excellent storage capacity in a place where it is needed.

Two small brick buildings, one for the East and one for the West Group, should be built to house the fire equipment which is very necessary for the protection of the hospital property.

The sum of \$60,000 should be provided for razing all of the old stucco buildings as new ones are finished.

*Remodelling Heating Plant, East G and West A Buildings.* — These buildings are heated by indirect radiation and so much dirt is blown into the wards that the cost of keeping the buildings painted is too great. Air filters should be installed in the basements, which will make the operation of these buildings much more economical.

Respectfully submitted,

JAMES V. MAY,

*Superintendent.*

# VALUATION

November 30, 1935

## REAL ESTATE

Land, 224.66 acres . . . . .	\$974,100.00
Buildings and betterments . . . . .	3,892,597.36

**\$4,866,697.36**

## PERSONAL PROPERTY

Travel, transportation and office expenses . . . . .	\$845.20
Food . . . . .	28,861.25
Clothing and materials . . . . .	35,943.28
Furnishings and household supplies . . . . .	307,861.22
Medical and general care . . . . .	16,496.67
Heat and other plant operation . . . . .	5,165.56
Farm . . . . .	5,649.49
Garage and grounds . . . . .	17,535.55
Repairs . . . . .	8,063.13

**\$426,421.35**

## SUMMARY

Real estate . . . . .	\$4,866,697.36
Personal property . . . . .	426,421.35

**\$5,293,118.71**



## FINANCIAL STATEMENT

To the Department of Mental Diseases:

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1935.

## STATEMENT OF EARNINGS

Board of patients		\$99,174.80
Personal Services:		
Reimbursement from Board of Retirement		289.00
Sales:		
Travel, transportation and office expenses	\$106.08	
Food	304.72	
Furnishings and household supplies	3.23	
Medical and general care	.85	
Heat and other plant operations	.45	
Garage and grounds	109.50	
Repairs ordinary	114.77	
Total sales		639.60
Miscellaneous:		
Rents	\$120.00	
Interest on Patients' Funds	15.83	
Total Miscellaneous		135.83

Total earnings for the year	\$100,239.23
Total cash receipts reverting and transferred to the State Treasurer	\$100,239.23

## MAINTENANCE APPROPRIATION

Balance from previous year, brought forward	\$28,775.12
Appropriation, current year	935,730.00

Total	\$964,505.12
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Expenditures as follows:	
Personal services	\$499,140.31
Food	180,128.80
Medical and general care	19,304.42
Religious instruction	2,080.00
Farm	5,749.21
Heat and other plant operation	101,125.12
Travel, transportation and office expenses	7,595.97
Garage and grounds	11,928.71
Clothing and materials	28,350.02
Furnishings and household supplies	34,374.50
Repairs ordinary	14,925.43
Repairs and renewals	24,435.96

Total maintenance expenditures	\$929,138.45
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Balance of maintenance appropriation, Nov. 30, 1935	\$35,366.67
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## SPECIAL APPROPRIATIONS

Balance December 1, 1934, brought forward	\$761,395.03
Appropriations for current year	142,836.00

Total	\$904,231.03
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Expended during the year (see statement below)	\$459,635.62
Reverting to Treasury of Commonwealth, Deductions made on appropriations.	135,678.25

	595,313.87
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Balance November 30, 1935, carried to next year	\$308,917.16
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APPROPRIATIONS	Total Amount Appropriated	Expended during fiscal year	Total Expended to date	Balance at end of year
Reception building, equipment	\$400,000.00	-	\$399,356.10	\$643.90
Mass. State Project M-1 Docket 875, carpenter shop.	14,690.07	\$136.79	14,690.07	-
Mass. State Project M-2 Docket 960, power plant	422,000.00	201,832.63	333,739.97	88,260.03
Mass. State Project M-4 Docket 959, Male Employees' Building	245,170.04	83,052.63	242,883.60	2,286.44
Mass. State Project M-5 Docket 976, Employees' and Officers' building	133,461.64	57,737.50	132,249.79	1,211.85
Mass. State Project M-29 Docket 1944, Laboratory and Mortuary building	72,500.00	18,893.11	61,214.64	11,285.36
Mass. State Project M-3 Docket 2658, T. B. Pavilion	173,000.00	86,960.70	158,283.81	14,716.19
Mass. State Project M-6 Docket 2065, Three Officers' Cottages	52,000.00	10,301.36	43,096.49	8,903.51
Mass. State Project M-4A and M-5A Docket 1991, Furn. and Equip. M-4 and Furn. and Equip. M-5	43,000.00	603.60	608.82	42,391.18
Iron Fence	13,000.00	37.26	37.26	12,962.74
Installation of Sprinklers — 1935-249	26,800.00	-	-	26,800.00
Mass. State Project M-111 Docket 1151, Sprinklers	99,536.00	80.04	80.04	99,455.96
	\$1,695,157.75	\$459,635.62	\$1,386,240.59	\$308,917.16

## PER CAPITA

During the year the average number of patients has been, 2,309.287

Total cost of maintenance \$929,138.45

Equal to a weekly per capita cost of (52 weeks to year), \$7.73657

Total receipts for the year, \$100,239.23

Equal to a weekly per capita of, \$.33385

Total net cost of maintenance for year, \$828,899.22

Net weekly per capita, \$6.90272

Respectfully submitted,

ROSE J. SICILIANO,

Treasurer.

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION, PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

(Data correct at end of institution year November 30, 1935)

Date of opening as a hospital for mental diseases, December 11, 1839.

Type of hospital: State.

Hospital plant:

Value of hospital property:

Real estate, including buildings	\$4,866,697.36
Personal property	426,421.35

Total	\$5,293,118.71
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Total acreage of hospital property owned, 224.66 acres

Total acreage under cultivation during previous year, 110.63 acres

Officers and employees:

	Actually in Service at end of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents	1	—	1	—	—	—
Assistant Superintendent	1	—	1	—	—	—
Assistant physicians	8	7½	15½	—	—	—
Total physicians	10	7½	17½	—	—	—
Stewards	1	—	1	—	—	—
Resident dentists	1	—	1	—	—	—
Pharmacists	1	—	1	—	—	—
Graduate nurses	—	55	55	—	—	—
Other nurses and attendants	193	190	383	50*	72*	122*
Occupational and industrial therapists	4	12	16	—	—	—
Social workers	—	5	5	—	—	—
All other officers and employees	111	102	213	20¾*	5*	25¾*
Total officers and employees	321	371½	692½	70¾*	77*	147¾*

\*Denotes number over standard quota (48-hour schedule)

Census of Patient Population at end of year:

	Actually in Hospital			Absent from Hospital but still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane	908	1,279	2,187	109	125	234
Mental defectives	1	6	7	1	—	1
All other cases	4	8	12	2	—	2
Total	913	1,293	2,206	112	125	237
OTHER RACES:						
Insane	31	42	73	2	9	11
Total	31	42	73	2	9	11
Grand Total	944	1,335	2,279	114	134	248

	M.	F.	T.
Patients under treatment in occupational-therapy classes, including physical training, on date of report	61	153	214
Other patients employed in general work of hospital on date of report	449	478	927
Average daily number of all patients actually in hospital during year	935.60	1,361.20	2,296.80
Persons given advice or treatment in out-patient clinics during year	95	133	228

TABLE 2. *Movement of Patient Population for the Year Ended September 30, 1935*  
(Data in all of the following tables are based on the Statistical Year, October 1, 1934 to September 30, 1935)

	TOTAL			REGULAR COURT COMMITMENT (INSANE)			OBSERVATION			TEMPORARY CARE		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1934 . . . . .	1,038	1,491	2,529	1,035	1,486	2,521	3	5	8	—	—	—
Admissions during year:												
First admissions . . . . .	319	305	624	250	256	506	22	11	33	47	38	85
Readmissions . . . . .	87	89	176	54	52	106	19	14	33	14	23	37
Total admissions . . . . .	406	394	800	304	308	612	41	25	66	61	61	122
Transfers from other mental hospitals . . . . .	15	23	38	15	23	38	—	—	—	—	—	—
Total received during year . . . . .	421	417	838	319	331	650	41	25	66	61	61	122
Total on books during year . . . . .	1,459	1,908	3,367	1,354	1,817	3,171	44	30	74	61	61	122
Discharged from books during year:												
As recovered . . . . .	38	50	88	30	45	75	7	2	9	1	3	4
As improved . . . . .	68	57	125	56	50	106	4	2	6	8	5	13
As without psychosis . . . . .	44	48	92	15	17	32	—	—	—	—	—	—
Transferred to other mental hospitals . . . . .	53	46	99	9	10	19	31	20	51	13	16	29
Total discharged to community . . . . .	203	201	404	110	122	232	42	25	67	51	54	105
Died during year . . . . .	12	57	69	12	57	69	—	—	—	—	—	—
Total discharged, transferred and died during year . . . . .	186	181	367	175	176	351	2	1	3	9	4	13
Patients remaining on books of hospital at end of year:	401	439	840	297	355	652	44	26	70	60	58	118
In hospital . . . . .	944	1,335	2,279	943	1,328	2,271	—	—	—	—	—	—
On parole or otherwise absent . . . . .	114	134	248	114	134	248	—	—	—	—	—	—
Total . . . . .	1,058	1,469	2,527	1,057	1,462	2,519	—	—	—	1	3	4

## SUPPLEMENTARY DATA

Average daily number of patients on books during year . . . . .	M.	F.	T.
Actually in institution during year . . . . .	1,043	1,485	2,528.65
In family care . . . . .	935	1,361	2,296.80
On visit . . . . .	—	12	12.47
On escape . . . . .	104	94	216.31
Number of patients actually remaining in institution September 30, 1935:	3	—	3.07
State . . . . .	864	1,176	2,040
Reimbursing . . . . .	80	159	239
Ex-service Patients paid by Federal Government . . . . .	—	1	1
Number of patients in family care September 30, 1935:	—	13	13
State . . . . .	—	—	—
Number of non-insane patients in hospital at end of institution year:	1	6	7
Mentally defective . . . . .	4	8	12
Others . . . . .	—	—	—

TABLE 3. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States <sup>1</sup>	145	142	287	47	48	36	49	57	44
Austria	—	1	1	—	—	—	1	1	1
Canada <sup>2</sup>	14	28	42	17	19	15	20	17	14
Denmark	1	—	1	1	1	1	—	—	—
England	6	5	11	8	6	5	9	6	3
France	—	—	—	1	—	—	2	1	1
Germany	6	2	8	10	9	9	9	7	6
Greece	1	—	1	1	1	1	—	—	—
Holland	—	—	—	—	1	—	1	—	—
Hungary	—	—	—	—	—	—	1	1	1
Ireland	41	44	85	86	91	78	77	73	68
Italy	18	7	25	24	23	22	9	8	8
Norway	—	—	—	1	—	—	—	—	—
Poland	1	3	4	3	3	3	4	3	3
Portugal	—	1	1	—	—	—	2	1	—
Roumania	—	—	—	1	—	—	—	—	—
Russia	6	12	18	7	7	6	11	11	11
Scotland	3	3	6	5	2	2	4	5	4
Spain	1	—	1	1	1	1	—	1	—
Sweden	4	—	4	5	6	5	—	—	—
Turkey in Asia	—	1	1	—	—	—	1	1	1
Wales	—	—	—	1	—	—	—	—	—
West Indies <sup>3</sup>	—	3	3	—	—	—	4	4	4
Other Countries	1	2	3	3	3	3	1	1	1
Unknown	2	2	4	28	29	26	51	58	49
Total	250	256	506	250	250	213	256	256	220

<sup>1</sup>Persons born in Hawaii, Porto Rico, and the Virgin Islands should be recorded as born in the U. S.<sup>2</sup>Includes Newfoundland.<sup>3</sup>Except Cuba, Porto Rico and Virgin Islands

TABLE 4. Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born

AGE AT ADMISSION	NATIVE BORN						FOREIGN BORN										Nativity Unknown				
	Aggregate			Total			PARENTAGE			Total			TIME IN U.S. BEFORE ADMISSION								
													15 years and over								
													Unknown								
M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
15-19 years	13	8	21	12	7	19	1	4	5	6	6	4	4	4	8	1	2	3	1	1	1
20-24 years	10	9	19	10	9	18	4	2	6	4	4	5	6	12	2	3	3	1	1	1	
25-29 years	8	12	20	8	10	18	-	1	1	1	1	1	1	1	1	1	1	1	1	1	
30-34 years	11	9	20	9	8	17	1	3	4	6	4	5	4	7	4	4	3	1	1	2	
35-39 years	12	25	37	9	16	25	2	7	9	3	4	7	2	5	7	2	2	9	8	11	
40-44 years	14	18	32	10	6	16	3	2	5	5	2	1	1	1	1	1	1	4	12	10	
45-49 years	10	20	30	5	9	14	6	6	6	4	1	5	3	1	1	1	1	5	10	15	
50-54 years	23	17	40	11	6	17	6	1	7	1	2	3	4	3	7	1	11	11	22	10	
55-59 years	21	29	50	12	17	29	2	-	2	6	10	16	3	4	3	7	12	9	9	18	
60-64 years	25	15	40	13	7	20	4	2	6	3	2	5	4	1	5	2	8	7	19	1	
65-69 years	34	24	58	18	9	27	4	2	6	5	3	8	6	1	7	3	14	29	1	1	
70-74 years	34	26	60	11	14	25	4	2	6	5	2	7	3	3	6	2	15	13	28	1	
75-79 years	22	18	40	10	11	21	4	4	8	4	4	8	1	1	2	1	21	8	29	1	
80-84 years	8	17	25	2	8	10	2	2	4	4	2	2	1	2	3	1	12	7	15	2	
85 yrs. over	5	9	14	5	5	10	1	1	2	1	1	1	1	1	1	1	6	9	5	10	
Total	250	256	506	145	142	287	35	44	79	56	47	103	37	29	66	17	22	39	96	93	189
																			3	13	16

TABLE 5. *Citizenship of First Admissions*

	M.	F.	T.
Citizens by birth . . . . .	145	142	287
Citizens by naturalization . . . . .	56	25	81
Aliens . . . . .	29	23	52
Citizenship unknown . . . . .	20	66	86
Total . . . . .	250	256	506

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			With syphilitic meningo-encephalitis			With other forms of syphilis			With other infectious diseases			Alcoholic psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	12	17	29	1	1	2	1	—	1	—	—	—	1	—	1
English . . . . .	8	9	17	—	1	1	—	—	—	—	—	—	1	1	2
French . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
German . . . . .	9	8	17	1	1	2	—	—	—	—	—	—	—	—	—
Greek . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew . . . . .	11	16	27	—	1	1	—	—	—	1	1	—	—	—	—
Irish . . . . .	87	86	173	5	1	6	—	—	—	1	1	—	17	4	21
Italian <sup>1</sup> . . . . .	25	12	37	3	—	3	—	—	—	—	—	—	—	—	—
Lithuanian . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Roumanian . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup> . . . . .	6	—	6	—	—	—	—	—	—	—	—	—	1	—	1
Scotch . . . . .	3	4	7	—	1	1	—	—	—	—	—	—	1	—	1
Slavonic <sup>3</sup> . . . . .	2	5	7	1	—	1	—	—	—	—	—	—	—	—	—
Spanish . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1
Syrian . . . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Mixed . . . . .	64	71	135	4	3	7	—	1	1	—	—	—	6	2	8
Race unknown . . . . .	18	23	41	1	—	1	—	—	—	1	1	—	1	1	2
Total . . . . .	250	256	506	16	9	25	1	1	2	—	3	3	29	8	37

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Traumatic psychoses			With cerebral arteriosclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Senile psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	—	—	—	8	9	17	—	—	—	—	—	—	—	2	2
English . . . . .	—	—	—	5	—	5	—	—	—	—	—	—	—	—	—
French . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German . . . . .	—	—	—	6	3	9	—	—	—	—	—	—	—	—	—
Greek . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew . . . . .	—	—	—	5	4	9	—	—	—	1	1	—	1	—	1
Irish . . . . .	—	—	—	39	34	73	1	—	1	—	4	4	6	9	15
Italian <sup>1</sup> . . . . .	—	—	—	8	3	11	—	—	—	2	—	2	—	—	—
Lithuanian . . . . .	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Portuguese . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Roumanian . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup> . . . . .	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—
Scotch . . . . .	—	—	—	2	1	3	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup> . . . . .	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Spanish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syrian . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed . . . . .	1	—	1	27	19	46	—	—	—	2	1	3	1	4	5
Race unknown . . . . .	—	—	—	12	17	29	—	1	1	—	—	—	—	3	3
Total . . . . .	1	—	1	115	90	205	1	2	3	4	6	10	8	18	26

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Involuntional psychoses			Due to other metabolic diseases, etc.			With organic changes of nervous system			Psycho-neuroses			Manic-depressive psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	1	3	4
English	—	—	—	—	—	—	—	—	—	—	—	—	2	4	6
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	1	—	1	—	—	—	—	—	—	1	3	4
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	1	1	—	1	1	—	—	—	—	—	—	5	4	9
Irish	—	1	1	1	1	2	1	—	1	1	3	4	10	15	25
Italian <sup>1</sup>	—	—	—	—	—	—	1	—	1	—	—	—	6	6	12
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Roumanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3
Spanish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	1	1	2	—	1	1	1	1	2	2	3	5	11	20	31
Race unknown	1	—	1	—	—	—	—	—	—	—	—	—	2	—	2
Total	2	3	5	2	3	5	3	1	4	3	6	9	40	58	98

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Dementia praecox			Paranoia and paranoid conditions			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
English	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	1	1
French	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Greek	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	1	1	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
Irish	—	3	3	1	6	7	—	—	—	3	1	4	1	2	3	1	1	2
Italian <sup>1</sup>	—	—	—	4	2	6	—	—	—	1	1	2	—	—	—	—	—	—
Lithuanian	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Roumanian	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Scotch	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	1	—	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Spanish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syrian	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Mixed	2	1	3	2	7	9	2	1	3	—	4	4	1	2	3	1	—	1
Race unknown	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	6	9	15	7	26	33	2	1	3	5	6	11	2	4	6	3	2	5

<sup>1</sup>Includes "North" and "South"<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			15-19 years			20-24 years			25-29 years			30-34 year		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	16	9	25	-	-	-	-	-	-	-	-	-	-	1	1
With other forms of syphilis	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	29	8	37	-	-	-	-	-	-	2	-	2	4	-	4
Traumatic psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	115	90	205	-	-	-	-	-	-	-	-	-	-	-	-
With other disturbances of circulation	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epil.)	4	6	10	-	-	-	1	-	1	1	-	1	1	1	2
Senile psychoses	8	18	26	-	-	-	-	-	-	-	-	-	-	-	-
Involuntal psychoses	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	3	1	4	1	-	1	-	-	-	1	-	1	-	-	-
Psychoneuroses	3	6	9	1	-	1	1	1	2	-	1	1	1	-	1
Manic-depressive psychoses	40	58	98	7	6	13	5	6	11	2	8	10	2	4	6
Dementia praecox	6	9	15	2	-	2	1	2	3	-	2	2	2	1	3
Paranoia and paranoid conditions	7	26	33	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	2	1	3	-	1	1	-	-	-	-	-	-	-	-	-
With mental deficiency	5	6	11	2	-	2	-	-	-	2	-	2	-	2	2
Undiagnosed psychoses	2	4	6	-	1	1	2	-	2	-	-	-	-	-	-
Without psychosis	3	2	5	-	-	-	-	-	-	-	1	1	1	-	1
Total	250	256	506	13	8	21	10	9	19	8	12	20	11	9	20

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued*

PSYCHOSES	35-39 years			40-44 years			45-49 years			50-54 years			55-59 years			60-64 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	-	1	1	3	2	5	2	-	2	3	2	5	4	2	6	3	-	3
With other forms of syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
With other infectious diseases	-	-	-	-	-	-	-	1	1	-	-	-	-	2	2	-	-	-
Alcoholic psychoses	3	-	3	4	3	7	2	2	4	4	2	6	6	-	6	2	-	2
Traumatic psy.	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
With cerebral arteriosclerosis	-	-	-	-	-	-	1	-	1	4	1	5	8	9	17	15	11	26
With other disturbances of circulation	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epil.)	-	2	2	1	-	1	-	1	1	-	-	-	-	1	1	-	-	-
Senile psychoses	-	-	-	-	-	-	-	1	1	-	-	-	-	1	1	-	1	1
Involuntal psy.	-	-	-	-	1	1	-	1	1	2	1	3	-	-	-	-	-	-
Due to other metabolic diseases, etc.	-	1	1	-	1	1	1	-	1	-	-	-	-	1	1	1	-	1
With organic changes of nervous system	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	1
Psychoneuroses	-	3	3	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	6	8	14	2	4	6	1	7	8	8	4	12	1	8	9	3	2	5
Dementia praecox	1	3	4	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	1	4	5	2	4	6	1	4	5	1	6	7	2	2	4	-	1	1
With psychopathic personality	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	1	1	-	1	1	1	-	1	-	1	1	-	1	1	-	-	-
Undiagnosed psy.	-	-	-	-	1	1	-	2	2	-	-	-	-	-	-	-	-	-
Without psychosis	-	1	1	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
Total	12	25	37	14	18	32	10	20	30	23	17	40	21	29	50	25	15	40



TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	65-69 years			70-74 years			75-79 years			80-84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	-	1	1	-	-	-	1	-	1	-	-	-	-	-	-
With other forms of syphilis	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With cerebralarteriosclerosis	25	18	43	29	18	47	20	15	35	8	13	21	5	5	10
With other disturbances of circulation	1	-	1	-	1	1	-	-	-	-	-	-	-	-	-
With convulsive disorders (epil.)	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Senile psychoses	3	2	5	4	2	6	1	3	4	-	4	4	-	4	4
Involuntional psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	2	-	2	1	1	2	-	-	-	-	-	-	-	-	-
Dementia præcox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	-	2	2	-	3	3	-	-	-	-	-	-	-	-	-
With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Without psychosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	34	24	58	34	26	60	22	18	40	8	17	25	5	9	14

TABLE 8. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	TOTAL			Illiterate			Reads and Writes			Common School			High School			College			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	16	9	25	1	1	2	1	-	1	10	5	15	1	1	2	1	-	1	2	2	4
With other forms of syphilis	1	1	2	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-
With other infectious diseases	-	3	3	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	2	2
Alcoholic psychoses	29	8	37	-	-	-	-	2	2	19	6	25	4	1	5	1	1	1	3	1	4
Traumatic psychoses	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	115	90	205	8	8	16	6	2	8	65	23	88	10	3	13	3	1	4	23	53	76
With other disturbances of circulation	1	2	3	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	1	1
With convulsive disorders (epilepsy)	4	18	22	1	2	2	2	-	2	4	5	9	-	-	-	-	-	-	1	1	2
Senile psychoses	8	3	11	-	-	-	-	-	-	2	2	4	-	-	-	-	-	-	2	11	13
Involuntary psychoses	2	3	5	-	-	-	-	1	1	2	1	3	1	5	7	-	-	-	-	-	-
Due to other metabolic diseases, etc.	3	1	4	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	3	6	9	-	-	-	-	-	-	2	2	4	1	2	3	-	-	-	-	-	-
Psychoneuroses	40	58	98	-	-	-	-	-	-	24	20	44	10	31	41	2	1	3	1	4	5
Manic-depressive psychoses	6	9	15	-	-	-	3	-	3	1	7	8	4	1	5	-	-	-	1	1	1
Dementia praecox	7	26	33	-	-	-	1	3	4	6	13	19	-	2	2	-	-	-	1	6	6
Paranoia and paranoid conditions	2	1	3	-	-	-	-	-	-	1	1	2	1	1	2	-	-	-	-	-	-
With psychopathic personality	5	6	11	2	1	3	-	-	-	3	4	7	1	1	2	-	-	-	-	1	1
With mental deficiency	2	4	6	-	-	-	-	-	-	1	3	4	1	1	2	-	-	-	-	-	-
Undiagnosed psychoses	2	2	4	-	-	-	-	-	-	2	1	3	-	-	-	-	-	-	-	-	-
Without psychosis	3	2	5	-	-	-	-	-	-	1	1	2	1	1	1	1	1	1	-	-	-
Total	250	256	506	12	16	28	15	6	21	147	101	248	35	47	82	8	4	12	33	82	115

TABLE 9. *Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			10,000- 24,999			25,000- 49,999			50,000- 99,999			500,000+		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	16	9	25	-	-	-	-	-	-	-	-	-	16	9	25
With other forms of syphilis	1	1	2	-	-	-	-	-	-	-	-	-	1	1	2
With other infectious diseases	-	3	3	-	-	-	-	-	-	-	-	-	-	3	3
Alcoholic psychoses	29	8	37	-	-	-	-	-	-	-	-	-	29	8	37
Traumatic psychoses	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1
With cerebral arteriosclerosis	115	90	205	-	1	1	1	1	2	-	1	1	114	87	201
With other disturbances of circulation	1	2	3	-	-	-	1	-	1	-	-	-	-	2	2
With convulsive disorders (epilepsy)	4	6	10	-	-	-	-	-	-	-	-	-	4	6	10
Senile psychoses	8	18	26	-	-	-	-	-	-	-	-	-	8	18	26
Involuntal psychoses	2	3	5	-	-	-	-	-	-	-	-	-	2	3	5
Due to other metabolic diseases, etc.	2	3	5	-	-	-	-	-	-	-	-	-	2	3	5
With organic changes of nervous system	3	1	4	-	-	-	-	-	-	-	-	-	3	1	4
Psychoneuroses	3	6	9	-	-	-	-	-	-	-	-	-	3	6	9
Manic-depressive psychoses	40	58	98	-	-	-	-	-	-	-	-	-	40	58	98
Dementia praecox	6	9	15	-	-	-	-	-	-	-	-	-	6	9	15
Paranoia and paranoid conditions	7	26	33	-	-	-	-	-	-	-	-	-	7	26	33
With psychopathic personality	2	1	3	-	-	-	-	-	-	-	-	-	2	1	3
With mental deficiency	5	6	11	-	-	-	-	-	-	-	-	-	5	6	11
Undiagnosed psychoses	2	4	6	-	-	-	-	-	-	-	-	-	2	4	6
Without psychosis	3	2	5	-	-	-	-	-	-	-	-	-	3	2	5
Total	250	256	506	-	1	1	2	1	3	-	1	1	248	253	501

TABLE 10. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Dependent			Marginal			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	16	9	25	6	1	7	8	6	14	2	2	4
With other forms of syphilis	1	1	2	1	-	1	-	1	1	-	-	-
With other infectious diseases	-	3	3	-	-	-	-	1	1	-	2	2
Alcoholic psychoses	29	8	37	1	-	1	23	6	29	5	2	7
Traumatic psychoses	1	-	1	-	-	-	1	-	1	-	-	-
With cerebral arteriosclerosis	115	90	205	35	8	43	64	39	103	16	43	59
With other disturbances of circulation	1	2	3	-	1	1	1	-	1	-	1	1
With convulsive disorders (epilepsy)	4	6	10	2	3	5	2	3	5	-	-	-
Senile psychoses	8	18	26	2	3	5	5	4	9	1	11	12
Involuntal psychoses	2	3	5	-	-	-	1	3	4	1	-	1
Due to other metabolic diseases, etc.	2	3	5	1	3	4	1	-	1	-	-	-
With organic changes of nervous system	3	1	4	1	-	1	2	1	3	-	-	-
Psychoneuroses	3	6	9	-	1	1	3	5	8	-	-	-
Manic-depressive psychoses	40	58	98	6	9	15	33	47	80	1	2	3
Dementia praecox	6	9	15	1	2	3	4	7	11	1	-	1
Paranoia and paranoid conditions	7	26	33	1	2	3	6	21	27	-	3	3
With psychopathic personality	2	1	3	-	-	-	2	1	3	-	-	-
With mental deficiency	5	6	11	2	2	4	2	4	6	1	-	1
Undiagnosed psychoses	2	4	6	1	-	1	1	4	5	-	-	-
Without psychosis	3	2	5	1	-	1	2	2	4	-	-	-
Total	250	256	506	61	35	96	161	155	316	28	66	94

TABLE 11. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Abstinent			Temperate			Intemperate			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . .	16	9	25	1	1	2	8	4	12	7	3	10	-	1	1
With other forms of syphilis . . .	1	1	2	1	-	1	-	-	-	-	1	1	-	-	-
With other infectious diseases . . .	-	3	3	-	1	1	-	-	-	-	-	-	-	2	2
Alcoholic psychoses . . .	29	8	37	-	-	-	-	-	-	29	8	37	-	-	-
Traumatic psychoses . . .	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
With cerebral arterio-sclerosis . . .	115	90	205	24	17	41	37	9	46	32	2	34	22	62	84
With other disturbances of circulation . . .	1	2	3	-	1	1	1	-	1	-	-	-	-	1	1
With convulsive disorders (epilepsy) . . .	4	6	10	2	4	6	1	2	3	-	-	-	1	-	1
Senile psychoses . . .	8	18	26	-	4	4	3	-	3	4	-	4	1	14	15
Involutional psychoses . . .	2	3	5	-	3	3	2	-	2	-	-	-	-	-	-
Due to other metabolic diseases, etc. . .	2	3	5	-	3	3	-	-	-	2	-	2	-	-	-
With organic changes of nervous system . . .	3	1	4	3	-	3	-	-	-	-	1	1	-	-	-
Psychoneuroses . . .	3	6	9	2	6	8	-	-	-	-	-	-	1	-	1
Manic-depressive psychoses . . .	40	58	98	14	33	47	17	17	34	8	3	11	1	5	6
Dementia praecox . . .	6	9	15	3	6	9	2	3	5	-	-	-	1	-	1
Paranoia and paranoid conditions . . .	7	26	33	1	12	13	4	8	12	1	1	2	1	5	6
With psychopathic personality . . .	2	1	3	2	-	2	-	1	1	-	-	-	-	-	-
With mental deficiency . . .	5	6	11	3	3	6	2	1	3	-	1	1	-	1	1
Undiagnosed psychoses . . .	2	4	6	1	3	4	-	1	1	1	-	1	-	-	-
Without psychosis . . .	3	2	5	-	2	2	1	-	1	2	-	2	-	-	-
Total . . .	250	256	506	57	99	156	79	46	125	86	20	106	28	91	119

TABLE 12. Marital Condition of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	TOTAL			Single			Married			Widowed			Divorced			Separated		
	M.		F.	T.			M.		F.	T.			M.		F.	T.		
With syphilitic meningo-encephalitis . . . . .	16	9	25	2	3	5	11	3	14	2	2	4	-	-	1	1	2	
With other forms of syphilis . . . . .	1	1	2	1	-	1	-	1	1	-	-	-	-	-	-	-	-	
With other infectious diseases . . . . .	-	-	3	3	1	1	-	-	-	-	2	2	-	-	-	-	-	
Alcoholic psychoses . . . . .	29	8	37	11	1	12	10	4	14	6	3	9	-	-	2	-	2	
Traumatic psychoses . . . . .	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
With cerebral arteriosclerosis . . . . .	115	90	205	35	24	59	39	21	60	34	45	79	4	4	3	-	3	
With other disturbances of circulation . . . . .	1	2	3	-	-	-	1	1	2	-	1	1	-	-	-	-	-	
With convulsive disorders (epilepsy) . . . . .	4	6	10	4	3	7	4	3	7	2	1	1	-	-	-	-	1	
Senile psychoses . . . . .	8	18	26	2	1	3	1	2	3	-	-	-	-	-	-	-	-	
Involutional psychoses . . . . .	2	3	5	2	1	3	1	2	3	-	-	-	-	-	-	-	-	
Due to other metabolic diseases, etc. . . . .	2	3	5	2	1	3	1	2	3	-	-	-	-	-	-	-	-	
With organic changes of nervous system . . . . .	3	1	4	3	-	3	-	-	-	-	-	-	-	-	-	-	-	
Psychoneuroses . . . . .	3	1	4	3	5	8	-	1	1	-	-	-	-	-	-	-	-	
Manic-depressive psychoses . . . . .	40	58	98	17	21	38	16	32	48	3	4	7	3	3	1	1	2	
Dementia praecox . . . . .	6	9	15	5	5	10	1	12	13	-	1	1	-	-	-	-	-	
Paranoia and paranoid conditions . . . . .	7	26	33	6	4	10	1	14	15	-	7	7	-	-	-	-	-	
With psychopathic personality . . . . .	2	1	3	0	1	2	1	1	2	-	-	-	-	-	-	-	-	
With mental deficiency . . . . .	5	6	11	4	2	6	-	3	3	1	1	2	-	-	-	-	-	
Undiagnosed psychoses . . . . .	2	4	6	2	3	5	-	-	-	-	1	1	-	-	-	-	-	
Without psychosis . . . . .	3	2	5	-	1	1	3	1	4	-	-	-	-	-	-	-	-	
Total . . . . .	250	256	506	97	78	175	89	93	182	48	81	129	7	7	9	4	13	











TABLE 13-A. *Mental Disorders of First Court Admissions, 1935*

MENTAL DISORDERS	First Court Admissions		
	M.	F.	T.
<i>Psychoses Due to or Associated with Infection:</i>			
Syphilis of the Central Nervous System:			
Meningo-encephalitic type (general paresis) . . . . .	16	9	25
Meningo-vascular type (cerebral syphilis) . . . . .	1	1	2
With other infectious disease . . . . .	—	2	2
Post infectious psychoses . . . . .	—	1	1
<i>Psychoses Due to Intoxication:</i>			
Due to Alcohol:			
Pathological intoxication . . . . .	1	2	3
Korsakow's psychosis . . . . .	6	3	9
Acute hallucinosis . . . . .	14	1	15
Other types . . . . .	8	2	10
<i>Psychoses Due to Trauma:</i>			
Traumatic delirium . . . . .	1	—	1
<i>Psychoses Due to Disturbances of Circulation:</i>			
With cerebral arteriosclerosis . . . . .	115	90	205
With cerebral embolism . . . . .	—	1	1
With cardio-renal disease . . . . .	1	—	1
Other types . . . . .	—	1	1
<i>Psychoses Due to Convulsive Disorders (Epilepsy):</i>			
Epileptic deterioration . . . . .	2	4	6
Epileptic clouded states . . . . .	—	2	2
Other epileptic types . . . . .	2	—	2
<i>Psychoses Due to Disturbances of Metabolism, Growth, Nutrition or Endocrine Function:</i>			
Senile Psychoses:			
Simple deterioration . . . . .	3	14	17
Presbyophrenic type . . . . .	3	2	5
Paranoid types . . . . .	2	2	4
Involutional Psychoses:			
Melancholia . . . . .	1	2	3
Paranoid types . . . . .	1	—	1
Other types . . . . .	—	1	1
With pellagra . . . . .	1	—	1
With other somatic diseases . . . . .	1	3	4
<i>Psychoses Due to Unknown or Hereditary Causes, but Associated with Organic Changes:</i>			
With Huntington's chorea . . . . .	1	1	2
With other brain or nervous diseases . . . . .	2	—	2
<i>Disorders of Psychogenic Origin or Without Clearly Defined Tangible Cause or Structural Change:</i>			
Psychoneuroses:			
Conversion hysteria:			
Mixed hysterical psychoneuroses . . . . .	1	1	2
Psychasthenia or compulsive states:			
Obsession . . . . .	—	2	2
Phobia . . . . .	—	1	1
Neurasthenia . . . . .	1	1	2
Hypochondriasis . . . . .	1	—	1
Mixed psychoneurosis . . . . .	—	1	1
Manic-depressive Psychoses:			
Manic type . . . . .	5	9	14
Depressive type . . . . .	23	37	60
Mixed type . . . . .	6	2	8
Perplexed type . . . . .	1	—	1
Stuporous type . . . . .	4	6	10
Other types . . . . .	1	4	5
Dementia praecox (schizophrenia):			
Simple type . . . . .	1	—	1
Hebephrenic type . . . . .	1	2	3
Paranoid type . . . . .	4	7	11
Paranoid conditions . . . . .	7	26	33
With psychopathic personality . . . . .	2	1	3
With mental deficiency:			
Idiot . . . . .	1	—	1
Imbecile . . . . .	1	3	4
Moron . . . . .	3	2	5
Unknown . . . . .	—	1	1
<i>Undiagnosed Psychoses</i> . . . . .	2	4	6
<i>Without Psychosis:</i>			
Alcoholism . . . . .	2	—	2
Psychopathic personality:			
With pathological emotionality . . . . .	—	1	1
Mental deficiency:			
Moron . . . . .	—	1	1
No other condition . . . . .	1	—	1
Grand Total . . . . .	250	256	506

TABLE 13-B. *Mental Disorders of Court Readmissions, 1935*

MENTAL DISORDERS	Court Readmissions		
	M.	F.	T.
With syphilitic meningo-encephalitis	-	1	1
Alcoholic psychoses	5	1	6
With cerebral arteriosclerosis	4	3	7
With convulsive disorders (epilepsy)	1	4	5
Manic-depressive psychoses	34	24	58
Dementia praecox	5	5	10
Paranoia and paranoid conditions	-	7	7
With psychopathic personality	1	-	1
With mental deficiency	2	6	8
Without psychosis	2	1	3
Total	54	52	106

TABLE 14. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	TOTAL			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	4	2	6	-	-	-	3	2	5	1	-	1
Alcoholic psychoses	16	4	20	8	3	11	7	1	8	1	-	1
Due to drugs, etc.	-	1	1	-	-	-	-	1	1	-	-	-
Traumatic psychoses	1	-	1	1	-	1	-	-	-	-	-	-
With cerebral arteriosclerosis	18	8	26	1	-	1	8	5	13	9	3	12
With other disturbances of circulation	-	1	1	-	-	-	-	1	1	-	-	-
With convulsive disorders (epilepsy)	1	-	1	-	-	-	1	-	1	-	-	-
Senile psychoses	2	2	4	-	-	-	2	-	2	-	2	2
Involuntional psychoses	-	1	1	-	-	-	-	1	1	-	-	-
Due to other metabolic diseases, etc.	2	3	5	-	2	2	1	1	2	1	-	1
Psychoneuroses	5	2	7	2	1	3	1	1	2	2	-	2
Manic-depressive psychoses	42	68	110	18	35	53	24	28	52	-	5	5
Dementia praecox	2	6	8	-	-	-	2	4	6	-	2	2
Paranoia and paranoid conditions	4	9	13	-	2	2	4	4	8	-	3	3
With psychopathic personality	2	1	3	-	1	1	1	-	1	1	-	1
With mental deficiency	2	3	5	-	-	-	2	1	3	-	2	2
Undiagnosed psychoses	-	1	1	-	1	1	-	-	-	-	-	-
Without psychosis	9	10	19	-	-	-	-	-	-	-	-	-
Total	110	122	232	30	45	75	56	50	106	15	17	32

TABLE 15. *Hospital Residence during This Admission of Court First Admissions Discharged during 1935*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	1	1	2	.29	.79	.54
Alcoholic psychoses	13	2	15	.98	.20	.88
Traumatic psychoses	1	-	1	.20	-	.20
With cerebral arteriosclerosis	17	8	25	.40	.58	.46
With other disturbances of circulation	-	1	1	-	.29	.29
With convulsive disorders (epilepsy)	1	-	1	7.50	-	7.50
Senile psychoses	2	2	4	.53	.08	.30
Involuntional psychoses	-	1	1	-	.71	.71
Due to other metabolic diseases, etc.	2	3	5	.65	.66	.66
Psychoneuroses	2	2	4	.04	.54	.29
Manic-depressive psychoses	29	41	70	.79	1.01	.90
Dementia praecox	1	2	3	4.50	.89	2.09
Paranoia and paranoid conditions	3	4	7	.48	.73	.63
With psychopathic personality	-	1	1	-	.37	.37
With mental deficiency	1	2	3	.20	1.60	1.13
Without psychosis	4	4	8	.41	.51	.46
Total	77	74	151	.79	.83	.81

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Mental Disorders

CAUSES OF DEATH	Total		With syphilitic meningo-encephalitis		With other forms of syphilis		With other infectious diseases		Alcoholic psychoses		With cerebral arterio-sclerosis		With other disturbances of circulation		With convulsive disorders (epilepsy)		Senile psychoses				
	M.	F.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
<i>Infectious and Parasitic Diseases:</i>																					
Tuberculosis of the respiratory system . . .	9	9	-	-	-	1	1	1	-	-	-	-	-	-	-	1	1	-	-	-	
Tuberculosis of other organs . . .	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Syphilis (non-nervous forms) . . .	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Purulent infection, septicaemia (non-puerperal) . . .	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Cancer and Other Tumors:</i>																					
Cancer and other malignant tumors . . .	5	6	-	-	-	-	-	-	2	2	2	2	2	4	-	-	-	-	-	-	
<i>Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases:</i>																					
Chronic rheumatism, osteoarthritis . . .	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
<i>Diseases of the Blood and Blood-making Organs:</i>																					
Pernicious anemia . . .	1	4	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	
<i>Diseases of the Nervous System and Organs of Special Sense:</i>																					
Cerebral hemorrhage . . .	2	9	-	-	-	-	-	-	-	-	2	6	8	-	-	-	-	-	1	1	
Cerebral embolism and thrombosis . . .	-	1	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	
General paralysis of the insane . . .	9	3	9	3	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dementia praecox and other psychoses . . .	1	1	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	
Other diseases of the nervous system . . .	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Diseases of the Circulatory System:</i>																					
Chronic endocarditis (valvular disease) . . .	1	2	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	
Diseases of the myocardium . . .	76	54	-	-	-	-	-	-	5	2	7	53	29	82	1	-	1	-	3	7	10
Diseases of the coronary arteries and angina pectoris . . .	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other diseases of the heart . . .	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arteriosclerosis . . .	21	28	-	-	-	-	-	-	2	-	17	14	31	-	-	1	1	-	-	-	
Gangrene . . .	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other diseases of the arteries . . .	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Diseases of the Respiratory System:</i>																					
Bronchitis . . .	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bronchopneumonia (including capillary bronchitis) . . .	37	40	2	1	3	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	
Lobar pneumonia . . .	5	3	-	-	-	-	-	-	3	1	4	24	28	52	-	-	-	7	7	-	



TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Mental Disorders — Concluded*

CAUSES OF DEATH	Involuntal psychoses		Due to other metabolic diseases, etc.		With organic changes of nervous system		Manic-depressive psychoses		Dementia praecox		Paranoia and paranoid conditions		With psychopathic personality		With mental deficiency		Undiagnosed psychoses	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Infectious and Parasitic Diseases:</i>																		
Tuberculosis of the respiratory system . . . . .	-	1	1	1	-	1	4	1	5	2	3	5	-	2	2	-	-	-
Tuberculosis of other organs . . . . .	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Syphilis (non-nervous forms) . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Purulent infection, septicaemia (non-puerperal) . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
<i>Cancer and Other Tumors:</i>																		
Cancer and other malignant tumors . . . . .	-	-	-	1	-	1	-	2	2	-	-	-	-	-	1	1	-	-
<i>Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases</i>																		
Chronic rheumatism, osteoarthritis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Blood and Blood-making Organs:</i>																		
Pernicious anemia . . . . .	-	-	-	1	1	-	-	1	1	-	1	1	-	-	-	-	-	-
<i>Diseases of the Nervous System and Organs of Special Sense:</i>																		
Cerebral hemorrhage . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
Cerebral embolism and thrombosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General paralysis of the insane . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dementia praecox and other psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of the nervous system . . . . .	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Circulatory System:</i>																		
Chronic endocarditis (valvular disease) . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diseases of the myocardium . . . . .	-	-	-	1	1	-	4	9	13	5	3	8	-	1	1	3	-	-
Diseases of the coronary arteries and angina pectoris . . . . .	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Other diseases of the heart . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arteriosclerosis . . . . .	1	-	1	-	-	1	-	-	-	1	1	-	-	-	-	-	-	-
Gangrene . . . . .	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
Other diseases of the arteries . . . . .	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
<i>Diseases of the Respiratory System:</i>																		
Bronchitis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bronchopneumonia (including capillary bronchitis) . . . . .	-	1	1	-	1	1	6	1	7	1	1	1	-	-	-	-	-	-
Lobar pneumonia . . . . .	-	-	-	-	-	-	1	1	2	-	-	1	-	-	-	-	-	-



TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses

Psychoses	Total			15-19 years			20-24 years			25-29 years			30-34 years			35-39 years			40-44 years			45-49 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	12	6	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3	4	1	5
With other forms of syphilis	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	15	3	18	-	-	-	-	-	-	1	1	2	-	-	-	1	1	2	1	1	2	1	1	2
With cerebral arteriosclerosis	102	84	186	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
With other disturbances of circulation	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-	1	-	-	-
Senile psychoses	4	26	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Involuntary psychoses	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	3	4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-
With organic changes of nervous system	2	3	5	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	16	19	35	-	-	-	2	-	2	1	1	2	-	-	-	1	1	2	-	-	1	-	4	4
Dementia praecox	10	8	18	-	-	-	-	-	-	-	-	-	1	1	2	5	-	3	1	1	2	-	3	3
Paranoia and paranoid conditions	2	12	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	3	3	6	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Undiagnosed psychoses	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Total	175	176	351	1	-	1	2	-	2	1	1	2	1	2	3	9	2	11	4	8	12	7	11	18



TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses — Concluded

PSYCHOSES	50-54 years			55-59 years			60-64 years			65-69 years			70-74 years			75-79 years			80-84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	1	1	2	3	1	4	1	-	1	1	1	2	1	-	1	-	-	-	-	-	-	-	-	-
With other forms of syphilis	-	-	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	1	-	1	2	-	2	2	-	2	2	-	2	4	-	4	-	1	1	-	-	-	-	-	-
With cerebral arteriosclerosis	2	1	3	4	8	12	11	6	17	19	13	32	28	18	46	23	15	38	7	17	24	7	6	13
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	-	-	-	-	-	-	-	-	-	1	5	6	2	9	11	1	4	5	-	4	4	-	3	3
Involutional psychoses	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	-	-	-	-	1	1	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	-	-	-	-	1	1	1	-	1	-	-	-	1	1	2	-	1	1	-	-	-	-	-	-
Manic-depressive psychoses	3	1	4	2	4	6	4	3	7	2	2	2	1	1	2	-	1	1	-	-	-	-	-	-
Dementia praecox	2	1	3	-	-	-	1	1	2	-	2	2	1	1	2	1	1	1	-	-	-	-	-	-
Paranoia and paranoid conditions	-	-	-	-	1	1	1	3	4	-	1	1	-	2	2	1	1	2	-	-	-	-	-	-
With psychopathic personality	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	1	1	2	-	2	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	9	8	17	13	17	30	24	17	41	28	22	50	37	34	71	25	24	49	7	21	28	7	9	16

TABLE 18. Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses

PSYCHOSES	TOTAL			Less than 1 month			1-3 months			4-7 months			8-12 months			1-2 years			3-4 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	12	6	18	2	1	3	3	-	3	1	1	2	1	1	2	2	1	3	1	1	2
With other forms of syphilis	1	1	2	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	15	3	18	4	1	5	-	1	1	-	-	-	1	1	2	2	-	2	2	-	2
With cerebral arteriosclerosis	102	84	186	53	35	88	20	14	34	11	8	19	4	5	9	9	9	18	3	5	8
With other disturbances of circulation	1	1	2	1	-	1	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	1	3	4	1	1	2	-	-	-	-	-	-	-	-	-	1	-	1	-	2	2
Senile psychoses	4	26	30	1	1	2	2	1	3	-	4	4	1	3	4	-	8	8	-	3	3
Involutional psychoses	1	1	2	1	1	2	1	-	1	-	2	2	-	-	-	-	1	2	-	2	2
Due to other metabolic diseases, etc.	3	4	7	1	1	2	1	-	1	-	-	-	-	-	-	1	1	2	-	-	-
With organic changes of nervous system	2	3	5	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	16	35	51	4	2	6	2	3	5	1	3	4	1	1	2	3	2	5	2	2	4
Dementia praecox	10	18	28	5	1	6	1	-	1	-	-	-	2	2	2	-	-	3	-	-	-
Paranoia and paranoid conditions	2	12	14	1	-	1	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
With psychopathic personality	1	1	2	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-
With mental deficiency	3	3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Undiagnosed psychoses	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	175	176	351	70	43	113	28	20	48	14	20	34	10	10	20	19	25	44	8	16	24

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses — Concluded*

Psychoses	5-6 years			7-8 years			9-10 years			11-12 years			13-14 years			15-19 years			20 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
With other forms of syphilis . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
With other infectious diseases . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
Alcoholic psychoses . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
With cerebral arteriosclerosis . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
With other disturbances of circulation . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
With convulsive disorders (epilepsy) . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
Senile psychoses . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
Evolutional psychoses . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
Due to other metabolic diseases, etc. . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
With organic changes of nervous system . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
Manic-depressive psychoses . . . . .	2	2	4	4	2	6	6	10	16	4	8	12	6	12	18	10	20	30	20	40	60
Dementia praecox . . . . .	4	4	8	8	4	12	12	16	32	8	16	24	12	24	36	20	40	60	40	80	120
Paranoia and paranoid conditions . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
With psychopathic personality . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
With mental deficiency . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
Undiagnosed psychoses . . . . .	1	1	2	2	1	3	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8
Total . . . . .	1	19	20	6	3	9	3	5	8	2	5	7	3	3	6	9	1	10	2	6	8

TABLE 19. *Average Length of Hospital Residence during the Present Admission of All First Admissions in Residence on September 30, 1935*

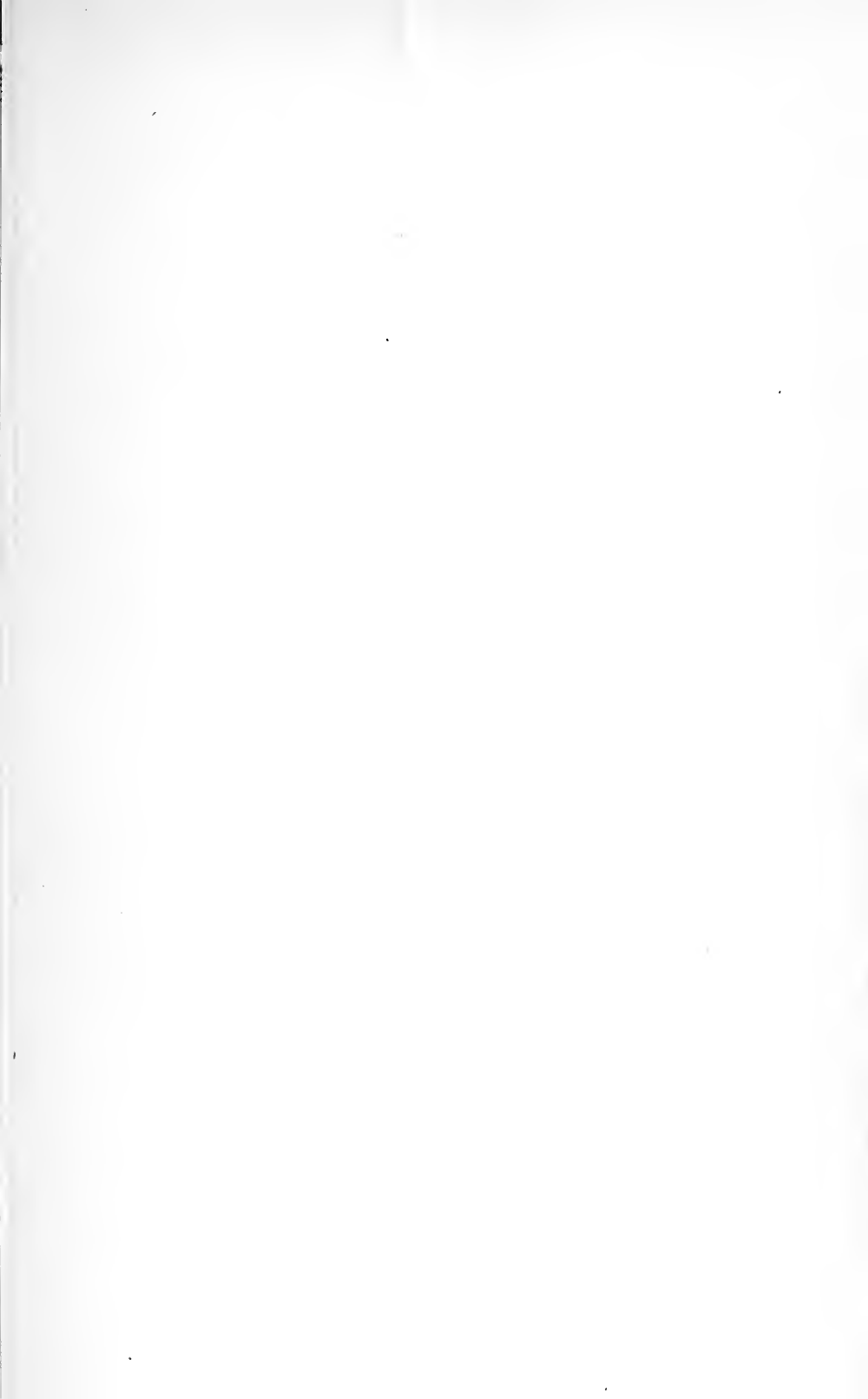
PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	27	11	38	4.52	3.20	4.13
With other forms of syphilis	4	3	7	7.75	12.50	9.78
With epidemic encephalitis	—	1	1	—	3.50	3.50
With other infectious diseases	—	4	4	—	.71	.71
Alcoholic psychoses	86	21	107	8.28	9.11	8.44
Traumatic psychoses	6	—	6	12.66	—	12.66
With cerebral arteriosclerosis	87	107	194	2.59	2.70	2.65
With other disturbances of circulation	1	2	3	4.50	.45	1.80
With convulsive disorders (epilepsy)	10	15	25	7.29	3.82	5.21
Senile psychoses	13	61	74	4.25	4.66	4.59
Involuntional psychoses	7	18	25	3.77	6.21	5.53
Due to other metabolic diseases, etc.	—	6	6	—	4.99	4.99
With organic changes of nervous system	11	4	15	4.58	13.50	6.96
Psychoneuroses	5	7	12	1.88	1.45	1.63
Manic-depressive psychoses	102	174	276	3.97	5.16	4.72
Dementia praecox	145	170	315	12.82	14.95	13.97
Paranoia and paranoid conditions	31	135	166	5.36	6.81	6.54
With psychopathic personality	2	11	13	1.47	7.95	6.95
With mental deficiency	40	49	89	12.78	7.90	10.09
Undiagnosed psychoses	3	4	7	1.81	2.21	2.04
Without psychosis	1	4	5	7.50	10.22	9.68
Total	581	807	1,388	7.47	7.43	7.45

TABLE 19-A. *Average Length of Hospital Residence during the Present Admission of All Readmissions in Residence on September 30, 1935*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	22	8	30	4.71	6.60	5.22
With other forms of syphilis	—	2	2	—	10.00	10.00
With other infectious diseases	—	1	1	—	12.50	12.50
Alcoholic psychoses	42	13	55	10.82	13.42	11.44
Due to drugs, etc.	1	—	1	4.50	—	4.50
Traumatic psychoses	2	1	3	20.00	17.50	19.16
With cerebral arteriosclerosis	6	8	14	2.48	2.61	2.55
With other disturbances of circulation	—	1	1	—	3.50	3.50
With convulsive disorders (epilepsy)	5	6	11	12.30	11.81	12.03
Senile psychoses	1	11	12	1.50	8.90	8.28
Involuntional psychoses	1	12	13	1.50	13.07	12.18
Due to other metabolic diseases, etc.	1	2	3	7.50	5.00	5.83
With organic changes of nervous system	3	2	5	3.15	10.00	5.89
Psychoneuroses	1	2	3	7.50	8.95	8.46
Manic-depressive psychoses	69	138	207	5.62	8.01	7.21
Dementia praecox	172	240	412	15.76	14.81	15.21
Paranoia and paranoid conditions	9	40	49	8.49	9.94	9.67
With psychopathic personality	6	6	12	4.32	13.82	9.07
With mental deficiency	21	29	50	10.97	8.78	9.70
Undiagnosed psychoses	1	1	2	17.50	1.50	9.50
Without psychosis	—	5	5	—	5.68	5.68
Total	363	528	891	11.45	11.55	11.51

TABLE 20. *Family Care Statistics for Year Ended September 30, 1935*

	Males	Females	Total
Remaining in Family Care September 30, 1934	—	10	10
Admitted to Family Care during the Year	—	15	15
Whole Number of Cases within the Year	—	25	25
Discharged from Family Care within the Year:	—	12	12
Returned to Institution	—	8	8
Discharged direct from Family Care	—	4	4
Remaining in Family Care September 30, 1935	—	13	13
Average Daily Number in Family Care during Year:	—	12.47	12.47
Supported by State	—	12.47	12.47





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*The Commonwealth of Massachusetts*

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1936

THE NINETY-SIXTH ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



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MRS. EDNA W. DREYFUS, Brookline.  
ALBERT EVANS, M.D., Boston.  
LEOPOLD M. GOULSTON, Boston.  
THOMAS F. FALLON, Boston.

CONSULTING PHYSICIANS

WILLIAM E. PREBLE, M.D., *Internist*.  
ALBERT EVANS, M.D., *Internist*.  
FRED B. LUND, M.D., *Surgeon*.  
IRVING J. WALKER, M.D., *Surgeon*.  
ALEXANDER J. A. CAMPBELL, M.D., *Surgeon*.  
W. R. MACAUSLAND, M.D., *Orthopedic Surgeon*.  
A. R. MACAUSLAND, M.D., *Orthopedic Surgeon*.  
H. G. LEE, M.D., *Orthopedic Surgeon*.  
GRACE E. ROCHFORD, M.D., *Gynecologist*.  
TRYGVE GUNDERSEN, M.D., *Ophthalmologist*.  
DONALD H. MACDONALD, M.D., *Laryngologist, Rhinologist, and Otologist*.  
A. MYERSON, M.D., *Neurologist*.  
EDWIN H. PLACE, M.D., *Epidemiologist*.  
LORETTA JOY CUMMINGS, M.D., *Dermatologist*.

CHAPLAINS

REV. HAROLD H. CRAMER      REV. MOSES L. SEDAR  
REV. FREDERICK G. M. DRISCOLL      REV. FRANK H. STEDMAN

OFFICERS OF THE HOSPITAL

JAMES V. MAY, M.D., *Superintendent*.  
GERALD F. HOUSER, M.D., *Assistant Superintendent*.  
MARY G. NOBLE, M.D., *Senior Physician*.  
EDMUND M. PEASE, M.D., *Senior Physician*.  
GENEVA TRYON, M.D., *Senior Physician*.  
FREDERICK LEDREW, M.D., *Senior Physician*.  
WINTHROP B. OSGOOD, M.D., *Senior Physician*.  
PURCELL G. SCHUBE, M.D., *Senior Physician*.  
MARGARET C. McMANAMY, M.D., *Senior Physician*.  
HAROLD F. NORTON, M.D., *Senior Physician*.  
NAOMI RASKIN, M.D., *Senior Physician, Pathologist*.  
FLORENCE A. BEAULIEU, M.D., *Assistant Physician*.  
MARGARET R. SIMPSON, M.D., *Assistant Physician*.  
BEATRICE KERSHAW, M.D., *Assistant Physician*.  
STEPHEN WOLANSKE, M.D., *Assistant Physician*.  
———, *Assistant Physician*.  
CONSTANCE G. HARTWELL, M.D., *Assistant Physician (School Clinic)*.  
GEORGE S. RILEIGH, D.M.D., *Dentist*.  
MARY ALICE McMAHON, R.N., *Principal of School of Nursing*.  
S. HENRY FRANKS, *Steward*.  
ROSE J. SICILIANO, *Treasurer*.

TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council:*

The Trustees of the Boston State Hospital have the honor to submit herewith their twenty-eighth annual report covering the year ending November 30, 1936. The detailed operations of the year are shown in the reports of the Superintendent and Treasurer, which are appended.



## PATIENTS IN THE CARE OF THE HOSPITAL

The number of patients in the hospital has continued to be very much in excess of the quota established for the institution, which is 2,295. The average daily number for the year has been 2,371.87, as compared with 2,309.28 for the preceding year. Because of a recent transfer to the Metropolitan State Hospital, the number at the end of the year was 2,335. Similar crowded conditions prevail at all the State Hospitals, so that there can be no permanent relief until more ward buildings in some hospitals are constructed. Meanwhile, there is an average increase in hospital population of from 400 to 500 patients, and we must face a continued and ever increasing congestion. This hospital has been designed to take care of the insane from the southern part of the Metropolitan district, but for some years only those with ten years' residence in Boston could be received, and that limit has now been increased to fifteen years. It is evident that the desire to have the patients within easy reach of their families for the purpose of visiting without undue expense is to a great extent defeated by this limitation.

## FINANCIAL STATEMENT

The appropriation for maintenance for the past year was \$1,108,260.00, plus an amount of \$28,880.60 brought forward from 1935, making a total appropriation \$1,137,140.60. The expenditures amounted to \$1,064,843.75 giving a weekly cost per patient of \$8.578.

The estimate for maintenance for the coming year, based on a patient population of 2,315, is as follows:

Personal services	\$764,358.00
Travel, transportation and office expenses	10,745.00
Food	360,013.18
Clothing and materials	40,000.00
Religious instruction	2,080.00
Furnishings and household supplies	54,100.00
Medical and general care	31,510.00
Heat and other plant operation	128,220.24
Farm	6,580.00
Garage and grounds	9,150.00
Repairs, ordinary	32,593.00
Repairs and renewals	92,789.00

Total . . . . . \$1,532,138.42

It is to be noted that recently the Department has modified the ration allowance, which it is hoped will make the dietaries more satisfactory. This allowance is based on the number of patients and has to be distributed over the whole population, including all the staff and employees.

## CONSTRUCTION

The nine buildings erected by Federal aid through the Emergency Public Works Commission and involving an expense of \$1,484,820.22, have all been completed and equipped. The later project, involving a cost of \$66,712.80, for providing sprinklers for the institution is practically completed.

Twenty years ago it was proposed to develop this hospital to a capacity of 2,000 patients and to provide it with all the necessary service buildings. It has now reached the designated capacity but it is far from having all the requisite auxiliary buildings. Its most pressing needs are an auditorium and an adequate storehouse. There should also be an additional steam line so that a defect at any one point will not interfere with the distribution to the rest of the hospital. A long range programme would include other supplementary buildings, and for the sake of protection against fire should provide for the replacement of the stucco buildings which in spite of the sprinklers are a serious fire menace. With these additions the hospital would be in a position adequately to care for a larger number of patients if it should be decided to add ward buildings. If the needs of this district are to be met, either this hospital must be enlarged or another hospital constructed.

The fence, for which \$13,000 was appropriated in 1935, has been constructed, and the laundry equipment appropriation of \$1,500 in 1936 has been expended.

The appropriation of \$26,800 in 1935 for sprinklers was transferred by the legislature to the Emergency Public Works Commission and was used as a part of the cost of the sprinkler project referred to above.

The Federal Works Progress Administration has generously allotted the sum of \$723,000 for the work of grading, road-building and tree-planting on the hospital grounds, and the legislature appropriated \$30,000 to meet the cost of materials. By this undertaking the hospital grounds will be vastly improved and roads that were a pressing necessity have been built. It would have been many years before legislative appropriations could have been obtained and meanwhile access to our buildings would have been most inconvenient if not difficult. However large this improvement there will be, still, much to be done.

Another W.P.A. project was the painting of the East A building.

#### GENERAL

The general health of the hospital has been excellent throughout the year. Only a very few cases of contagious diseases developed. These were at once transferred to the Boston City Hospital, and there was no spread of the infection.

The hospital has continued its educational services to the medical profession by clinical lectures and by giving experience to internes.

By Chapter 130 of the Acts of 1936 the Trustees were relieved of the responsibility of passing on the mental condition of prisoners sent by the courts for observation or treatment, a responsibility which the Trustees were not competent to discharge. The only advantage of the old requirement was to give the prisoners an opportunity to protest against their return, but this has not been used in any case.

The Trustees desire to record their confidence in the Superintendent and other officers of the hospital and to express their appreciation of the faithful service which all are rendering.

HENRY LEFAVOUR

KATHERINE G. DEVINE

CHARLES B. FROTHINGHAM

EDNA W. DREYFUS

ALBERT EVANS

LEOPOLD M. GOULSTON

THOMAS F. FALLON

*Trustees.*

#### REPORT OF THE SUPERINTENDENT

##### *To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1936, and the fiscal year ending November 30, 1936. Founded by the City of Boston in 1839, this marks the completion of its ninety-seventh year as a hospital for mental diseases, and the twenty-eighth year of its history as a State institution.

#### MOVEMENT OF POPULATION

The census of the hospital on September 30, 1935, was as follows: in the wards, men, 944, women, 1,339, total, 2,279; at home on visit, men, 111, women, 121, total, 232; boarding out, men, none, women, 13; and out on escape, women, none, men, 3; making a total of 2,527; 1,058 men and 1,469 women, in the custody of the hospital.

Four hundred and eighty-six men and 483 women, a total of 969, were received during the year. This included the following: first admissions as insane, men 300, women 306, total 606; readmissions as insane, men 33, women 59, total 92; first admissions, temporary care, men 98, women 52, total 150; readmissions, temporary care, men 34, women 35, total 69; and transferred from other institutions, men 21, women 31, total 52. Four hundred and eighteen, including 224 men and 194 women, were discharged during the year. Twelve men and 13 women, a total of 25, were transferred to other institutions. One hundred and eighty-nine men and 164 women, a total of 353, died during the year.

The census on September 30, 1936, was as follows: in the wards, men 995, women 1,414, total 2,409; at home on visit, men 124, women 153, total 277; boarding out, men 0, women 15; and out on escape, women 0, men 1; making a total of 2,702, 1,120 men and 1,582 women, in the custody of the hospital.

The total number of cases treated during the year was 3,496, 1,544 men and 1,952 women.

The average daily number of patients for the statistical year was as follows: men 1,091.91, women 1,540.56, total 2,632.46. The average daily number in the wards was: men 972.73, women 1,384.71, total 2,357.44, or 89.56% of the whole number. The average daily number at home on visit was, men 117.15, women 141.33, total 258.48, or 9.82%. The average daily number boarding out was, men 0, women 14.35, or .54%. The average daily number out on escape was, men 2.03, women .17, total 2.20, or .08%. The average daily number of committed cases was, men, 963.39, women 1,377.98, total 2,341.37, or 99.32% of the number in the wards. There were no voluntary cases during the year. The average daily number of emergency cases was, men 0, women .006, or .0002%. The average daily number of cases under complaint or indictment (Section 100) was, men 16.15, women .21, total 16.36, or .69%. The average daily number of cases acquitted of murder by reason of insanity (Section 101) was, women 0, men 1.00, or .04%. The average daily number of cases of insane prisoners under sentence (Section 104) was, women 0, men 3.17, or .14%. The average daily number of temporary care cases, all forms, was, men 9.33, women 6.73, total 16.06, or .68%. The average daily number of epileptics was, men 14.00, women 19.00, total 33.00, or 1.40%. The average daily number of tuberculous patients was, men 22.87, women 40.14, total 63.01, or 2.67%. The average daily number of reimbursing patients was, men 83.96, women 150.17, total 234.13, or 8.894%. The average daily number of cases supported by the State was, men 1,007.95, women 1,390.39, total 2,398.34, or 91.106%. The average daily number of ex-service cases on the books was, men 42.51, women 2.00, total 44.51, or 1.69% of the total number on the books. The average daily number of ex-service cases in the hospital was, men 34.96, women 2.00, total 36.96, or 1.56% of the total number of patients in the wards.

The recovery rate, based on the number of all first admissions (756), was 9.92% based on the total number cared for during the year (3,496), 2.15%; based on the average daily number in the wards (2,357.43), 3.18%; and based on the total number of admissions for the year (969), 7.74%.

The death rate, based on the total number cared for during the year, was 10.10%; and based on the average daily number in the wards, 14.98%. Inasmuch as over 35% of the population is of the infirmary type, and about 10% bed cases, the death rate at this institution is unusually large compared with similar hospitals. There are committed to the Boston State Hospital many acutely ill, senile, and infirm cases from the city that cannot readily be transported to a greater distance. It is obvious, for the same reason, that too much significance should not be attached to the recovery rate. In this connection, attention should be called to the fact that the first admissions for this year represent an average age on admission of 54.65 years.

Of the first admissions as insane, 289, or 47.69%, were foreign born, and 449, or 74.09%, were of foreign parentage on one or both sides. Sixty-six, or 10.90%, were aliens. Citizenship was unascertained in 120, or 19.60%. Of the 7,113 consecutive first admissions for the sixteen-year period ending September 30, 1936, 3,397, or 47.76%, were foreign born; 5,559, or 78.15%, were of foreign parentage on one or both sides; 1,157, or 16.24%, were aliens; and citizenship was unascertained in 866, or 12.18%.

The average age on admission was 54.64 years; 282, or 46.54%, were sixty years of age or over; and 173, or 28.55%, were seventy years of age or over. For the sixteen-year period ending September 30, 1936, the average age on admission was 53.03 years; 2,969, or 41.74%, were sixty years of age or over, and 1,665, or 23.41%, were seventy years of age or over.

The first admissions for the year, classified according to legal status, under Chapter 123 of the General Laws, were as follows:

	M.	F.	T.	%
Committed cases (Sec. 51)	193	195	388	64.02
Committed cases (R.C. 77)	1	2	3	.50
Committed cases (R.C. 100)	1	—	1	.16
Observation cases (Obs. 77)	14	10	24	3.96
Emergency cases (Sec. 78)	—	—	—	—
Temporary care cases (Sec. 79)	86	99	185	30.53
Persons under complaint or indictment (Obs. 100)	3	—	3	.50

Prisoners under sentence (Sec. 104)

2	-	2	33
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Total	300	306	606	100.00
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Of the 606 first admissions for the year, the cause was unascertained or no causes given in 111, or 18.31%. In the 495 cases where a definite cause was assigned, the etiological factors reported may be classified as follows: senility, 35, or 7.07%; arteriosclerosis, 234, or 47.27%; syphilis, 24, or 4.84%; alcoholism, 46, or 9.30%; involutional changes, 7, or 1.17%; and traumatism, 10, or 1.80%. There was a family history of mental diseases in 74, or 12.21%, mental defects in 5, or .82%, and nervous diseases in 16, or 2.76%, of the first admissions. Of the 7,113 first admissions to the hospital during the sixteen-year period ending September 30, 1936, the cause was unascertained or no cause given in 1,838, or 25.84%. In the 5,275 cases where a definite cause was assigned, the etiological factors are classified as follows: senility, 821, or 15.56%; arteriosclerosis, 1,803, or 34.18%; syphilis, 491, or 9.31%; alcoholism, 547, or 10.37%; involutional changes, 265, or 5.02%; and traumatism, 76, or 1.44%. There was a family history of mental diseases in 1,118, or 15.72%, mental defects in 116, or 1.63%, and nervous diseases, in 257, or 3.61%, of the first admissions during this period.

The forms of mental disease shown by the 606 first admissions for the year, briefly summarized, were as follows: psychoses with syphilitic meningo-encephalitis 26, or 4.29%; psychoses with other infectious diseases, 2, or .33%; alcoholic psychoses, 40, or 6.60%; psychoses due to drugs, 3, or .50%; traumatic psychoses, 3, or .50%; psychoses with cerebral arteriosclerosis, 238, or 39.27%; psychoses, with other disturbances of circulation, 3, or .50%; psychoses with convulsive disorders (epilepsy), 7, or 1.16%; senile psychoses, 34, or 5.60%; involutional psychoses, 4, or .66%; psychoses due to other metabolic diseases, 12, or 1.98%; psychoses due to new growth, 3, or .50%; psychoses with organic changes of the nervous system, 7, or 1.16%; psychoneuroses, 11, or 1.81%; manic-depressive psychoses, 115, or 18.97%; dementia praecox, 24, or 3.96%; paranoia and paranoid conditions, 35, or 5.77%; psychoses with psychopathic personality, 12, or 1.98%; psychoses with mental deficiency, 20, or 3.30%; and undiagnosed psychoses, 3, or .50%. Four, or .66%, were without psychosis. The psychoses of all first admissions are shown in Table 13, on page .

The forms of mental disease shown by the 7,113 first admissions for the sixteen-year period ending September 30, 1936, are summarized as follows: psychoses with syphilitic meningo-encephalitis, 464, or 6.52%; psychoses with other forms of syphilis, 35, or .49%; psychoses with epidemic encephalitis, none; psychoses with other infectious diseases, 23, or .32%; alcoholic psychoses, 460, or 6.47%; psychoses due to drugs, etc., 30, or .42%; traumatic psychoses, 33, or .46%; psychoses with cerebral arteriosclerosis, 1,966, or 27.64%; psychoses with other disturbances of circulation, 65, or .91%; psychoses with convulsive disorders (epilepsy), 75, or 1.05%; senile psychoses, 843, or 11.85%; involutional psychoses, 129, or 1.81%; psychoses due to other metabolic diseases, etc., 122, or 1.71%; psychoses due to new growth, 18, or .25%; psychoses with organic changes of the nervous system, 102, or 1.43%; psychoneuroses, 67, or .94%; manic-depressive psychoses, 1,201, or 16.88%; dementia praecox, 541, or 7.61%; paranoia and paranoid conditions, 436, or 6.13%; psychoses with psychopathic personality, 52, or .73%; psychoses with mental deficiency, 202, or 2.84%; and undiagnosed psychoses, 182, or 2.56%. Sixty-seven, or .94%, were without psychosis.

The forms of mental disease shown by the 92 readmissions for the year, committed as insane, were as follows: psychoses with syphilitic meningo-encephalitis, 5, or 5.44%; alcoholic psychoses, 4, or 4.35%; traumatic psychosis, 1, or 1.09%; psychoses with cerebral arteriosclerosis, 10, or 10.87%; psychoses with convulsive disorders (epilepsy), 3, or 3.26%; senile psychoses, 3, or 3.26%; involutional psychosis, 1, or 1.09%; psychoses due to other metabolic diseases, 2, or 2.18%; psychoneuroses, 2, or 2.18%; manic-depressive psychoses, 44, or 47.83%; dementia praecox, 5, or 5.44%; paranoia and paranoid conditions, 3, or 3.26%; psychoses with psychopathic personality, 2, or 2.18%; and psychoses with mental deficiency, 6, or 6.52%. One, or 1.09%, was without psychosis.

The total number of insane cases discharged during the year was 220. Of this number, 58, or 26.36%, were discharged as recovered; 122, or 55.48%, as improved; 35, or 15.91%, as unimproved; and 5, or 2.27%, as without psychosis.

The following is a study of the entire hospital residence in all hospitals for mental diseases, exclusive of all time out on visit, of the above 220 cases discharged during the year: 14, or 6.36%, were discharged after a residence of less than one month; 80, or 36.36%, after a residence of from one to six months, 46, or 20.91%, from six months to one year; 38, or 17.27%, from one to two years; 11, or 5.00%, from two to three years; 12, or 5.45%, from three to four years; 4, or 1.82%, from four to five years; 8, or 3.63%, from five to ten years; and 7, or 3.18%, ten years or over. The average duration of hospital residence was 1 year, 6 months, and 20 days.

Of the 332 deaths occurring during the year, 245, or 73.80%, represented cases dying at the age of sixty or over. In 160, or 48.19%, death occurred at the age of seventy or over. Of the 4,473 deaths occurring at the hospital during the sixteen-year period ending September 30, 1936, 3,117, or 69.24%, were cases dying at the age of sixty or over; and in 1,800, or 40.24%, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: tuberculosis of the respiratory system, 12, or 3.61%; cancer and other malignant tumors, 9, or 2.71%; general paralysis of the insane, 7, or 2.11%; diseases of the myocardium, 117, or 35.24%; arteriosclerosis, 74, or 22.30%; bronchopneumonia, 73, or 21.99%; lobar pneumonia, 5, or 1.51%; and nephritis, 3, or .90%.

The psychoses represented by deaths occurring in the hospital during the year were as follows: psychoses with syphilitic meningo-encephalitis, 20, or 6.02%; alcoholic psychoses, 10, or 3.01%; psychoses with cerebral arteriosclerosis, 177, or 53.31%; psychoses with other disturbances of circulation, 5, or 1.51%; psychoses with convulsive disorders (epilepsy), 3, or .90%; senile psychoses, 34, or 10.24%; involutional psychoses, 5, or 1.51%; psychoses due to other metabolic diseases, etc., 5, or 1.51%; psychoses due to new growth, 3, or .90%; psychoses with organic changes of the nervous system, 4, or 1.20%; manic-depressive psychoses, 34, or 10.24%; dementia praecox, 17, or 5.12%; paranoia and paranoid conditions, 8, or 2.40%; traumatic psychoses and psychoses with mental deficiency, each 2, or .60%; and 1, or .30%; of each of the following: psychoses with other forms of syphilis, psychosis with other infectious disease, and psychosis with psychopathic personality. Of the 177 cases of psychosis with cerebral arteriosclerosis dying in the hospital during the year, death was due in 67, or 37.85%, to diseases of the myocardium; in 55, or 31.07%, to arteriosclerosis; and in 41, or 23.16%, to bronchopneumonia. Of the 34 cases of senile psychosis, death was due in 14, or 41.18%, to diseases of the myocardium; in 7, or 20.60%, to arteriosclerosis; and in 10, or 29.41%, to bronchopneumonia. Of the 34 cases of manic-depressive psychosis, death was due in 5, or 14.71%, to tuberculosis of the respiratory system; in 6, or 17.65%, to diseases of the myocardium; in 4, or 11.77%, to arteriosclerosis; and in 7, or 20.60%, to bronchopneumonia. Of the 17 cases of dementia praecox, death was due to tuberculosis of the respiratory system in 3, or 17.65%; to cancer and other malignant tumors in 3, or 17.65%; to diseases of the myocardium in 5, or 29.41%; to arteriosclerosis in 3, or 17.65%, and to bronchopneumonia in 2, or 11.77%.

Of the 332 patients dying in the hospital during the year, the total duration of hospital residence was as follows: less than one year, 202, or 60.84%, one to three years, 45, or 13.55%, three to five years, 22, or 6.63%; five to seven years, 12, or 3.61%; seven to nine years, 11, or 3.31%; nine to eleven years, 6, or 1.81%; eleven to fifteen years, 9, or 2.71%; fifteen to twenty years, 8, or 2.41%; and twenty years and over, 17, or 5.12%.

The psychoses represented by the 2,409 patients in the hospital on September 30, 1936, were as follows: psychoses with syphilitic meningo-encephalitis, 79, or 3.28%; psychoses with other forms of syphilis, 8, or .33%; psychosis with epidemic encephalitis, 1, or .04%; psychoses with other infectious diseases, 3, or .12%; post-infectious psychosis, 1, or .04%; alcoholic psychoses, 170, or 7.05%; psychoses due to drugs, etc., 2, or .08%; traumatic psychoses, 9, or .37%; psychoses with cerebral arteriosclerosis, 250, or 10.38%; psychoses with other disturbances of cir-

culation, 2, or .08%; psychoses with convulsive disorders (epilepsy), 38, or 1.58%; senile psychoses, 82, or 3.40%; involuntional psychoses, 36, or 1.49%; psychoses due to other metabolic diseases, etc., 11, or .45%; psychoses due to new growth, none; psychoses with organic changes of the nervous system, 20, or .83%; psychoneuroses, 17, or .70%; manic-depressive psychoses, 506, or 21.00%; dementia praecox, 735, or 30.51%; paranoia and paranoid conditions, 231, or 9.59%; psychoses with psychopathic personality, 29, or 1.20%; psychoses with mental deficiency, 158, or 6.56%; and undiagnosed psychoses, 8, or .33%. Thirteen, or .54%, were without psychosis.

The average duration of hospital residence, during the present admission, of all cases in the hospital on September 30, 1936, classified according to psychoses, was as follows: psychoses with syphilitic meningo-encephalitis, 4.47 years; psychoses with other forms of syphilis, 9.82 years; psychoses with other infectious diseases, 1.48 years; alcoholic psychoses, 9.28 years; psychoses due to drugs, etc., .45 years; traumatic psychoses, 15.93 years; psychoses with cerebral arteriosclerosis, 2.69 years; psychoses with other disturbances of circulation, .97 years; psychoses with convulsive disorders (epilepsy), 7.41 years; senile psychoses, 4.12 years; involuntional psychoses, 8.41 years; psychoses due to other metabolic diseases, etc., 4.39 years; psychoses with organic changes of the nervous system, 5.48 years; psychoneuroses, 2.24 years; manic-depressive psychoses, 5.99 years; dementia praecox, 14.93 years; paranoia and paranoid conditions, 7.40 years; psychoses with psychopathic personality, 6.83 years; psychoses with mental deficiency, 9.20 years; and undiagnosed psychoses, 4.10 years. The average duration of hospital residence of the cases without psychosis was 6.48 years.

The general information relating to the ward service shown in the following table should be of interest:

	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Percentage</i>
Average daily population . . . . .	972.72	1,384.71	2,357.43	100.00
In bed . . . . .	116.22	180.93	297.15	12.60
In restraint . . . . .	4.19	28.51	32.70	1.39
In seclusion . . . . .	4.15	14.77	18.92	.80
Congregate dining room . . . . .	797.40	716.94	1,514.34	64.24
Eating in wards . . . . .	175.32	667.77	843.09	35.76
Fed by nurses . . . . .	13.37	106.05	119.42	5.06
Idle . . . . .	444.26	711.34	1,155.60	49.02
Employed . . . . .	528.46	673.37	1,201.83	51.98
Parole of grounds . . . . .	115.95	9.88	125.83	5.33
Out for exercise . . . . .	853.49	512.84	1,366.33	57.96
Noisy . . . . .	57.82	292.20	350.02	14.85
Violent . . . . .	—	31.97	31.97	1.36
Destructive . . . . .	24.05	197.88	221.93	9.41
Soiled or wet . . . . .	100.56	227.83	328.39	13.93
Taking medicine . . . . .	53.89	37.45	91.34	3.88
Epileptic . . . . .	14.00	19.00	33.00	1.40
Tuberculous . . . . .	22.87	40.14	63.01	2.67
Infirm . . . . .	367.38	462.69	830.07	35.21

The average daily population for the entire year is represented in the percentages given above, that is: the average daily number of patients in bed was 297.15, or 12.60% of the average daily number of patients in the wards of the hospital for the year, and the average daily number employed was 1,201.83, or 51.98% of the same average daily population. The fact that over 35% of the population of this hospital is of the infirmary type should be noted when considering the number of patients out for exercise and the percentage employed in useful occupations.

#### GENERAL HEALTH OF THE HOSPITAL

The general health of the patients and employees has been good throughout the year, with the exception of the usual grippe colds among both patients and employees during March and April. Dr. Tryon, senior physician, fell and sustained a Colles' fracture of the right wrist the latter part of January and was disabled for about a month. On February 1st, Dr. Schube, senior physician, was operated for removal of gall stones, and made an uneventful recovery. In December a patient in

West F-1 was found to have scarlet fever and was treated at the Boston City Hospital South Department, returning to this hospital after about a month. No other cases developed. There were three isolated cases of diphtheria during the year, one a patient in Ward 3 of the Psychiatric Clinic. She was sent to the South Department of the Boston City Hospital, and made a good recovery. All of the patients and employees in this ward were given the Schick test and all those who showed positive reactions were given antitoxin treatment. No further cases developed. The other two were employees on the ward service, both of whom were sent to the Boston City Hospital for treatment. One made a satisfactory recovery, and returned to duty at the hospital, while the other went home after several weeks of treatment and resigned from the service later. In February an institution porter was off duty for a week because of a septic sore throat, and in May a psychiatric nurse suffered a severe attack of measles. Both of these employees were treated at the Boston City Hospital.

There has been the usual number of minor injuries to patients during the year, and fractures of bones have resulted from accidental falls of feeble and aged patients. Reports of all of these occurrences have been made to the Department of Mental Diseases and to the Board of Trustees.

All accidental injuries of any kind suffered by employees have been reported in the usual form to the Department of Industrial Accidents.

Examinations for Wassermann reaction have been made for us, as in the past several years, by the State Department of Public Health, as follows: blood serum, 896 (21 Wassermann and 875 Hinton), and cerebrospinal fluid, 178, making a total of 1,074 examinations. During the year, 820 treatments for neurosyphilis were given to 65 patients — an average of 12.62 treatments per patient. A full account of this work is given elsewhere.

#### EMPLOYEES

On September 30, 1935, there were 591 persons employed in the hospital. During the year, 348 were appointed, 208 resigned, and 17 were discharged; 939 employees occupied 734.25 positions — a rotation of 1.28. The average daily number of all employees was 709.57, and the average daily number of ward employees, 447.71. Figured on the average daily authorized quota, 686.86 for all employees and 385.06 for ward employees, this represents an average daily excess for the year of 3.31% for all employees and 16.27% for ward employees. This is misleading, however, owing to the fact that 160 additional employees required for the operation of the 48-hour-a-week schedule and employed by instructions from the Department were not added to the official authorized quota until December 1st. Inasmuch as the new schedule was put into effect on October 25, 1935, and some employees were engaged even previous to that time, the excess occurred early in the year. The ratio of ward employees to patients was one to 5.27, and of all employees, one to 3.31. On September 30, 1936, 734 persons were employed in the hospital. After a full year's operation of the new schedule, we find that it has added 170 employees to the authorized quota, at a total cost of nearly \$170,000 for the year, for personal services only, the additional cost for food and laundry not being covered by any additional appropriation.

The total number of visits to patients during the year was 84,452, the maximum number on one day being 1,243. Considerable attention from the attendants and nurses is required for this large number of visitors.

#### MEDICAL SERVICE

On April 27, 1936, Dr. Sirkka E. Vuornos an assistant physician at this hospital since May 1, 1931, resigned to be married. This vacancy was filled by the appointment on July 1, 1936, of Dr. Beatrice R. Kershaw. Dr. Kershaw was born in Centreville, R. I., and is a graduate of the Methuen High School, Methuen, Mass. She received the degrees of A.B. from Brown University in 1922, M.A. from Boston University in 1932, and M.D. from the Boston University School of Medicine in 1935. She served as intern for three months in the summer of 1934 at the Metropolitan State Hospital, and completed a twelve months internship at the New England Hospital for Women and Children before coming here. Dr. Alberta S. B. Guibord, who had served this hospital as assistant physician in charge of the work of the school clinic since June, 1922, died at the Newton Hospital on May

27, 1936, after a brief illness. During the fourteen years of her association with the school clinics of this hospital she gave generously of her interest and energy, and was painstaking and conscientious in her application to the detail involved in this work. Her keen perception of problems and kind understanding made her decisions and recommendations especially valuable, and her cheerful, buoyant personality will long be remembered by those who worked with her. On August 17, 1936, Dr. Constance G. Hartwell was appointed assistant physician to carry on this work, and the position was made a full-time instead of a half-time appointment. Dr. Hartwell was born in Springfield, Mass. She received the degree of A.B. in 1932 from the Boston University College of Liberal Arts and graduated from the Boston University School of Medicine in 1935. She had some training at the Worcester State Hospital as a fourth-year student during the month of November, 1934, and completed a twelve months general rotating internship at the Massachusetts Memorial Hospitals just previous to assuming her duties here. On September 1, 1936, Dr. Benjamin Margulois, who was appointed assistant physician on October 22, 1934, resigned to accept an appointment at the State Hospital for Mental Diseases at Howard, R. I. To fill this vacancy Dr. Stephen Wolanske was appointed assistant physician on November 1, 1936. Dr. Wolanske was born in Gardner, Mass. He received the degree of B. A. at St. John's College, Annapolis, in 1931, and his medical degree from Tufts College Medical School in 1935. He served as intern at the Worcester Memorial Hospital from May, 1935, to November, 1936. On September 14, 1936, Dr. Carl E. Trapp, senior physician, who had been a member of the medical staff since June 19, 1933, resigned to accept an appointment at the Massachusetts Memorial Hospitals. This vacancy was filled by the promotion of Dr. Harold F. Norton on October 1, 1936, from assistant physician to senior physician. Dr. Norton was appointed assistant physician on October 22, 1934. He was born in Hyde Park, Mass., attended Tufts College for one year and Boston College for one year, and received the degree of D.M.D. from Tufts College Dental School in 1925. He graduated from Harvard Medical School in 1931 and served as an intern on a rotating service at the Beverly Hospital for one year. He was an assistant physician at the Norfolk County Hospital, Braintree, Mass., and was assistant physician at the Connecticut State Hospital at Middletown from February, 1933, until his appointment here. The vacancy for assistant physician created by Dr. Norton's promotion has not been filled.

There has been no change in the list of consultants during the year. Frequent visits have been made to patients requiring surgical attention and operations performed by Dr. Irving J. Walker, Dr. Alexander J. A. Campbell, and Dr. Grace E. Rochford. Dr. William E. Preble and Dr. Albert Evans, consulting internists, have visited patients from time to time when their special advice was required. Members of the MacAusland Clinic have responded to calls frequently and performed orthopedic surgery when necessary, sometimes of a very complicated type. Dr. Myerson has examined patients having neurological problems. Dr. Place has been of considerable assistance when there has been any question of contagious disease, and Dr. Cummins has been consulted regarding treatment of skin conditions requiring attention. The routine examinations of new admissions have been made in the eye clinic, and in the ear, nose, and throat clinic, and the necessary treatments carried out. Dr. Trygve Gundersen has had charge of the eye clinic and has made 803 examinations, 799 patients and 4 employees; and Dr. Donald H. Macdonald, in charge of the ear, nose, and throat clinic, has examined 685 patients and 18 employees, a total of 703 examinations. In addition to the above, weekly visits have been made since the latter part of August by a chiroprapist, Charles H. Thorner of Quincy, and treatment given to patients who required such attention. This has been done without remuneration.

The following articles have been published during the year by members of the hospital staff, and others are in press for publication next year:

A study of the use of Coramine in dealing with the effects of barbituric acid derivatives. Dr. Purcell G. Schube. *N. E. Jour. Med.*, 214: 926-929, May 7, 1936.

Relationship between the cerebrospinal fluid sugar and blood sugar in untreated neurosyphilis. Dr. Purcell G. Schube. *Am. J. Psychiat.*, 93: 139-153, July, 1936.



The colon in mental disease. I. Dementia Praecox. Dr. Purcell G. Schube, *Am. J. Digestive Diseases and Nutrition*, 3: 528-533, October, 1936.

Caffeine intoxication: report of a case the symptoms of which amounted to a psychosis. Drs. Margaret C. McManamy and Purcell G. Schube. *N. E. Jour. Med.*, 215: 616-620, October 1, 1936.

A study of four hundred juvenile delinquents. Drs. Winthrop B. Osgood and Carl E. Trapp. *N. E. Jour. Med.*, 215: 623-626, October 1, 1936.

Notes on the psychiatric literature of the classical era. Dr. Carl E. Trapp. *Med. Rec.*, 144: 325-326, October 7, 1936.

In February a clinic in psychiatry was given by Dr. Trapp to students from Northeastern University. Six weekly clinics in psychiatry were given in April and May to third-year students from Tufts College Medical School — one by Dr. Roy D. Halloran, and the others by Dr. Houser. Four clinics in psychiatry were given in September and October to third-year students from the Boston University School of Medicine — two by Dr. Houser, one by Dr. Osgood, and one by Dr. Norton — and five weekly clinics in November to these students — two each by Dr. Houser and Dr. LeDrew, and one by Dr. Schube. On October 30, Dr. Osgood gave a clinic in psychiatry to fourth-year students from Boston University School of Medicine. Eight clinics in neurology were given by Dr. Trapp in December, February, March, April, and May to fourth-year students from Boston University School of Medicine. Dr. Nathan H. Garrick gave a clinic in neurology on March 13 to first-year medical students from Boston University. Dr. Leo Alexander, of the research laboratory staff, gave fourteen weekly illustrated lectures on neuropathology for members of the medical staffs of the Massachusetts State Hospitals. In May, three illustrated lectures on pathological subjects were given as follows: by Dr. Tracy J. Putnam on May 4, by Dr. Houston Merritt on May 11, and by Dr. Colin P. Campbell on May 18. On February 7, Dr. Osgood gave a clinic in psychiatry to nurses from the Massachusetts Memorial Hospitals, and in April three weekly clinics in psychiatry were given to student nurses from the Cambridge Hospital, two by Dr. Osgood and one by Dr. Trapp. Dr. Lillian D. Chapman, formerly of the hospital staff, gave a clinic in psychiatry to student nurses from the New England Hospital for Women and Children on January 23rd.

Two, sometimes three, fourth-year students from the Boston University School of Medicine and two, sometimes three, fourth-year students from Tufts College Medical School have spent a month each at this hospital as interns during the school year. Two house physicians from the Peter Bent Brigham Hospital now spend four months each at the hospital, taking a course in clinical psychiatry. During the summer months, four clinical assistants were added to the staff as usual.

Throughout the year regular staff meetings have been held as usual, except during the summer months. These were all held at the Psychiatric Clinic, patients being transported for presentation one day each week from the East Group and one day each week from the other West Group wards. Monthly meetings were held at the pathological laboratory for demonstration of items of interest. An effort is made to present at these staff meetings all new admissions and all cases about to leave the hospital on visit or to be discharged.

The work of the venereal clinic was conducted during the year by Dr. Frederick LeDrew, with the assistance of Dr. Harold F. Norton and Dr. Benjamin Margulolis. Student interns from the Boston University School of Medicine and Tufts College Medical School assisted in the work and were instructed in the various phases of syphilotherapy. During the year, 509 injections of trypanamide were given to 38 men and 11 women. One hundred and eighty-six intravenous injections of neoarsphenamine were given to 10 men and 7 women. Fifty-one intramuscular injections of bismarsen were given to 3 patients and 74 intramuscular injections of iodo-bismuthate of quinine were given to 5 during the interval between treatments with trypanamide. Of the 50 patients diagnosed psychosis with syphilitic meningoenzephalitis, 7 died, 4 became worse, 10 showed no change, 13 were somewhat improved, and 7 were discharged from treatment, unable to profit from further therapy. Six in this group were taken home on trial visit, 5 improved and one having shown no change. Two were discharged, one improved and one remaining unchanged. In 6 patients a diagnosis of manic-depressive psychosis was made;

3 of these were manic, 2 depressed, and 2 stuporous. Four showed considerable improvement and 2 remained unchanged. Four cases, one diagnosed psychosis with mental deficiency, imbecile, 1 diagnosed psychosis associated with organic changes of the nervous system, with other brain or nervous diseases, type undetermined, 1 diagnosed alcoholic psychosis, Korsakow's psychosis, and 1 diagnosed psychosis with other forms of syphilis of the central nervous system, meningo-vascular type, remained unchanged. Considerable improvement was noted in 2 cases diagnosed respectively traumatic psychosis, post-traumatic mental deterioration, and alcoholic psychosis, other types, chronic hallucinosis. Of 2 men diagnosed psychosis with cerebral arteriosclerosis, 1 died and the other became worse. A case of psychoneurosis, psychasthenic type, was considered to be somewhat improved.

#### RESEARCH DEPARTMENT

The work of the laboratory under the Division of Psychiatric Research of the Department of Mental Diseases has been carried on during the year with Dr. Abraham Myerson as Director, and the following personnel: Dr. Leo Alexander, research neuropathologist; Dr. Julius Loman and Dr. Max Rinkel, associated research psychiatrists; Dr. William Dameshek, research internist; Mollie S. Levin, secretary; Gladys Howard, biochemist, succeeding Caroline Stephenson on October 1st; David Goldman, physicist; Catherine M. Burke, research pathological technician; Lila Anderson, research technician; Ruth Lambert, X-ray technician; and Ann Sharaf, volunteer worker. The report of the Director is as follows:

The work at the laboratory has continued along five main lines:

- I. The development of the autonomic pharmacology: Here we have reached a most important place. We are now able to predict results obtained in a way entirely impossible when we started our experiments. We can safely say that cholinergic stimulation, that is, stimulation by acetyl-beta-methylcholine chloride (mecholy) increases the alkalinity of the secretions of the body, such as the sweat, the tears, saliva, and the gastric juices; lowers blood pressure; increases the heart rate (this being a paradoxical result), which is explained afterwards; and dilates blood vessels probably throughout the larger part of the organism. The effect on the heart is now being studied and we have some remarkable electrocardiograms. We also know that the esterases of the body destroy and inhibit mecholy, thus putting an end to cholinergic stimulation. Physostigmin and prostigmin inhibit or destroy the esterases, so the effect of these two drugs is to enhance cholinergic activity. Thus, it is possible by using small doses to prostigmin to use smaller doses of mecholy and obtain tremendous physiological results. The pulse rate is definitely lowered when prostigmin is used together with mecholy, and this is a point of great physiologic importance and likely of therapeutic value. So far as the sympathetic drugs are concerned, we know that adrenoergic stimulation, as exemplified by adrenalin, ephedrin, and, especially in our experiments, benzedrine, tends to increase the acidity of the gastric juices, raise the blood pressure, constrict blood vessels, and in the case of benzedrine slow the heart and relax the gastrointestinal musculature, this being at present its most important therapeutic use. Whatever effect benzedrine has tends to be increased by atropin or hyoscin, since these paralyze the parasympathetic or cholinergic activities. We have obtained some very interesting results on the gall bladder which indicate strongly that benzedrine and atropin will form useful drugs for the relaxation of spasm and irritation of the gall bladder and its ducts. Of some importance directly related to psychiatry is the effect of benzedrine on fatigue and mood. This drug is quite useful in the neuroses, especially of the type in which there is gastrointestinal spasm, and particularly fatigue and depression in the morning which tends to get better as the day wears along. In this type of case, the effect is such that a better hold is obtained on the patient and his reorganization can be undertaken with more confidence both on his part and on that of the physician. In other words, by changing mood temporarily, it enables confidence to enter into the life of the patient and to make him more receptive to the injunctions and directions of the physician.

II. Micro-incineration and mineral studies: The laboratory has been busily engaged in the development of a new technique, the micro-incineration method. By the utilization of this method, now incorporated in papers in press, it is possible to state, first, that the minerals are important factors in the metabolism of the nerve cells; second, that this metabolism is highest, or at least the minerals are present in greater amount, in youth than in old age; in other words, that old age is associated with the disappearance and inactivity of minerals. Third, in certain inflammatory processes, the minerals appear to be increased in amount. In multiple sclerosis, the minerals are increased in the early phases of the pathological process; become more scanty as the plaque grows older. The iron metabolism is especially interesting in the case of thrombosis and hemorrhage. We are now engaged in a collaborative research with the Massachusetts Institute of Technology. Up to this point we have been able to make only rough qualitative studies of the mineral metabolism. They have engaged to push the work in a more scientific direction by making it possible to study the minerals qualitatively and, to a certain extent, quantitatively as well. In other words, where our micro-incineration method gives us a rough estimate of the amount of mineral and allows us to identify a few of the mineral deposits, the method now being evolved will enable us to identify ten mineral substances as well as to give a rough estimation of the amount of each mineral. This arrangement with the Massachusetts Institute of Technology is on a financial basis, and they are being paid for their work out of research funds.

III. During this past year, Dr. Leo Alexander and Dr. A. Colin P. Campbell finished a piece of work on the allergy of the nervous system, by which they have been enabled to demonstrate that when an animal is rendered sensitive to a foreign substance, that injection of that foreign substance into the brain creates far more hemorrhage and reaction than when the body has not been rendered so sensitive. This research bears importantly on certain types of encephalitis, and especially of hemorrhagic type, which have hitherto had no explanation. An important piece of work is in progress which deals with the effect upon the blood-forming organs of malnutrition and other common disorders of diet. This animal experimentation is mainly directed towards discovering the mineral changes which take place under such conditions and represent on the whole a new direction of research.

IV. The director has formulated a relationship between the neuroses and certain of the mental diseases in a paper which appeared in the September issue of the *American Journal of Psychiatry*. This formulation attempts to trace the transition between normal reaction to emotion, fatigue, frustration and desire, reactions which appear in the various types of neuroses and which finally express themselves by a transition from a neurosis to what the director calls the *neuropsychoses*. The *neuropsychosis* appears when hypochondriasis, for example, becomes somatic delusion. It appears likewise when the feeling of unreality, which is so common in the severe neurosis, passes over into falsification of reality. It manifests itself when the general attitude of the patient, "I am sick," becomes transformed into the general declaration, "I am being punished", or, in rarer instances, "I am being persecuted". During the coming year, clinical case histories showing this relationship, which is too often overlooked and has received only a very limited attention in psychiatry, will be published in the form of a monograph. The importance of this concept lies in the fact that it offers the hope that more attention to certain of the neuroses, their physiology and their psychology, will lessen the incidence of certain of the psychoses.

V. In 1934 the director was appointed by the American Neurological Association chairman of a committee to investigate the sterilization problem, and he appointed as his associates Dr. James B. Ayer, Dr. Tracy J. Putnam, Dr. Clyde B. Keeler, and Dr. Leo Alexander. In June of 1935 a report was submitted to the American Neurological Association on this subject. The reception was so enthusiastic that it was decided that it would be well to amplify the report into a book; so that it might be accessible to the general scientific public. This was done, and the book appeared in October, entitled "Eugenical Sterilization — A Re-orientation of the Problem". This report deals with the laws and shows that the compulsory laws in this country are not, or perhaps cannot be, enforced, and that laws based on voluntary selective sterilization are the ones that stand the best chance of reinforcement. The report further shows that the current statements

concerning the alleged increase of mental disease, the prolificity of the feeble-minded and of the insane and the general increasing biological damage, which is the stock-in-trade of the propaganda of the eugenists, is not at all true. When the proper corrections are made for the age of the population, it can be shown that in Massachusetts, New York, and many of the foreign countries, there has been either a decrease in mental diseases or no increase. The main place of increase is in the senile and arteriosclerotic cases, and this is due to several factors: 1, the increasing age of the population, and 2, the improvement of hospitals so that people are willing to send their old relatives to the institutions. This book further examines the studies which have been done and concludes that none of them is anywhere near the standard demanded of scientific work. It is concluded that there probably is an hereditary factor in dementia praecox and manic-depressive psychosis; that there certainly is some hereditary factor in a large number of cases of feeble-mindedness; that there is no substantial hereditary factor in epilepsy or crime, at least by the proof at the present time adduced. The committee makes certain recommendations for sterilization but mainly recommends that substantial and organized research be done in this important field of work. The propriety of including this report and book in the report of the laboratory research activities rests upon the fact that the bulk of the work done by this committee was done by the director and by Dr. Leo Alexander, aided by the secretary of the research division, Miss Mollie S. Levin.

Altogether it has been an exceedingly fruitful year. This is due to the fact that collaboration was the keynote of the work. The staff of the hospital furnished patients and thus aided very substantially. Dr. Purcell G. Schube has become an active member of the research division. The director here voices his thanks to the superintendent and the staff of the hospital for their collaboration.

The following papers were read during the past year:

1. The Emotions. March 4, 1936, before the American Dental Society. (A. Myerson).
2. The Physiological and Psychological Effects of Benzedrine. March 19, 1936, before the Boston Society of Psychiatry and Neurology. (A. Myerson).
3. The Pharmacology of the Autonomic Nervous System. April 24, 1936, before the Boston Dispensary Medical Staff. (A. Myerson).
4. Clinical Approach to the Pharmacology of the Autonomic Nervous System. May 5, 1936, before the St. Louis Medical Society, St. Louis, Mo. (A. Myerson).
5. The Mineral Content in Cerebral Lesions as Demonstrated by the Micro-Incineration Method. May 6, 1936, before the American Psychiatric Association, St. Louis, Mo., and June 1, 1936, before the American Neurological Association, Atlantic City, N. J. (L. Alexander, A. Myerson and D. Goldman).
6. The Effects of the Sympathomimetic Drug Benzedrine on the Viscera and the Mood of Man. September 2, 1936, before the American Psychological Association at Hanover, N. H. (A. Myerson).
7. The Neuroses. September 22, 1936, before the Connecticut Medical Society. Society, New Haven, Conn. (A. Myerson).
8. Pharmacology of the Autonomic Nervous System. October 1, 1936, before the North Bronx Medical Society, Bronx, N. Y. (A. Myerson).
9. Human Autonomic Pharmacology. October 6, 1936, before the Neurological Supper Club, Harvard Medical School. (A. Myerson).
10. The Physical Side of the Neuroses. October 21, 1936, before the Academy of Physical Medicine. (A. Myerson).
11. Autonomic Pharmacology. November 6, 1936, before the Beth Israel Hospital Staff. (A. Myerson).
12. Experimental Autonomic Pharmacology of the Human Being. November 19, 1936, before the Southern Medical Association, Baltimore, Md. (A. Myerson).

The following papers were published during the year by members of the research laboratory staff:

1. Studies in the dynamics of the human cranio-vertebral cavity. *Am. J. of Psychiat.*, 92, 4: 791-815, Jan. 1936. (Julius Loman and Abraham Myerson).
2. Visualization of the cerebral vessels by direct intracarotid injection of thorium dioxide (thorotrast). *Am. J. of Roent. and Radium Therapy*, 35, 2: 188-193, Feb., 1936. (Julius Loman and Abraham Myerson).

3. Relation of trauma to mental diseases. *Am. J. of Psychiat.*, 92, 5: 1031-1038, Mar., 1936. (Abraham Myerson).
4. Effect of alterations in posture on the intra-arterial blood pressure in man. I. Pressure in the carotid, brachial and femoral arteries in normal subjects. II. Pressure in the carotid artery in arteriosclerosis, during syncope and after the use of vasodilator drugs. *Arch. of Neurol. and Psychiat.*, 35, 6: 1216-1232, June, 1936. (Julius Loman, William Dameshek, Abraham Myerson and David Goldman)
5. Benzedrine sulfate and its value in spasm of the gastro-intestinal tract. *J. A. M. A.*, 107, 1: 24-26, July 4, 1936. (Abraham Myerson and Max Ritvo).
6. Physiologic effects of benzedrine and its relationship to other drugs affecting the autonomic nervous system. *Am. J. Med. Sci.*, 192, 4: 560-574, October, 1936. (Abraham Myerson, Julius Loman, and William Dameshek).
7. Neuroses and neuropsychoses. The relationship of symptom groups. *Am. J. of Psychiat.*, 93, 2: 263-301, September, 1936. (Abraham Myerson).
8. Eugenical Sterilization. A Reorientation of the Problem. (The Committee of the American Neurological Association for the Investigation of Sterilization: Abraham Myerson, James B. Ayer, Tracy J. Putnam, Clyde B. Keeler, Leo Alexander). The Macmillan Co., New York, October, 1936.
9. Chapter I. Psychopathology. Chapter II. Conflicts and Maladjustments within the Normal Range. In "The Practitioners Library of Medicine and Surgery", edited by George Blumer, D. Appleton-Century Co., New York, 1936. (Abraham Myerson).
10. The mineral content in cerebral lesions as demonstrated by the micro-incineration method. (Abstract) *Arch. of Neurol. and Psychiat.*, 36, 3: 651-653, September 1936, (Leo Alexander, Abraham Myerson and David Goldman).
11. Error in Psychiatry. Chapter XIII in "The Story of Human Error", edited by Joseph Jastrow, D. Appleton-Century Co., New York, 1936. (Abraham Myerson).
12. Effect of benzedrine sulfate on mood and fatigue in normal and in neurotic persons. *Arch. of Neurol. and Psychiat.*, 36, 4: 816-822, October, 1936. (Abraham Myerson).

The following papers from the research laboratory are in press and will appear shortly:

1. Physiologic effects of acetyl-beta-methylcholin (mecholy) and its relationship to other drugs affecting the autonomic nervous system. *Am. J. Med. Sci.* (Abraham Myerson, Julius Loman and William Dameshek).
2. The effect of acetyl-beta-methylcholin (mecholy) on the atonic colon. *Am. J. Radiology.* (Abraham Myerson, Purcell G. Schube and Max Ritvo).
3. The mineral content in cerebral lesions as demonstrated by the micro-incineration method. *Arch. of Neurol. and Psychiat.* (Leo Alexander, Abraham Myerson and David Goldman).
4. Local anaphylactic lesions in the brain in guinea-pigs. (Leo Alexander and A. Colin P. Campbell).
5. General and local sweating produced by acetyl-beta-methylcholin chloride (mecholy). *Am. J. Med. Sci.* (Abraham Myerson, Julius Loman and Max Rinkel).
6. The autonomic pharmacology of the gastric juices. *New England J. Med.* (Abraham Myerson, William Dameshek and Max Rinkel).
7. Cysts and tumors of the cerebellar pontine angle and their relation to the lateral recesses of the fourth ventricle. *Assoc. for Research in Nervous and Mental Disease; Annual Volume, 1935*, Williams & Wilkins Co., Baltimore, Md. (Leo Alexander).

#### SOCIAL SERVICE DEPARTMENT

The work of the social service department has continued during the past year under the direction and supervision of Miss Florence E. Armstrong, the head social worker. One change has occurred in the regular staff, which consists of one psychiatric social worker and three assistant psychiatric social workers. Miss Marion E. Andrews, who rendered excellent service to the hospital for nearly five years, resigned to take a position in the Department of Mental Diseases at the State House on a higher Civil Service rating. Her place was filled by the pro-

visional appointment of Mrs. Vasilike Foster on September 1st. Mrs. Foster served in the United States Army during the World War as a medical social worker, and since that time has had valuable experience in hospitals in different parts of the country. She has assisted the National Red Cross on many occasions of disaster, when hurricanes, floods, tornadoes, and drought have occurred. Three students completed the course of training under the general direction of the Department of Mental Diseases. One of these married; one is living at home, unemployed; and the third is now in charge of the occupational interests and social placement of patients at the Occupational Therapy Center at City Mills. The year closes with only one new student availing herself of the course of training provided through the winter and spring. She is Miss Leila Aronen, who was graduated from Mt. Holyoke College in 1931. In considering the matter of personnel in the social service department, one is impressed as the years pass, bearing their quota of employees and students, with the great importance of personality qualifications in social workers. Civil Service lists offer individuals who supposedly commend themselves by their capacity to score high ratings in written examinations and by good physical health. Student candidates come, immature, with a college degree and a desire for practical training in some line of work. All can be trained technically, but no supervisor can beautify a metallic voice, inculcate gentleness when dealing with grief, teach tact, which is indispensable, or develop an irresponsible or unstable personality into one which will inspire confidence among those who are sick and maladjusted to life. The personality of the social worker is as important as her intellectual qualifications, yet it is too seldom taken into account by examiners. Maturity is especially desirable in hospital social workers, and we are fortunate in that respect. During the past year many occasions have arisen in which our social workers have represented the case of the hospital in relation to the care and needs of our patients most successfully. Where antagonism might have flared, a mature, tactful, unaggressive worker has gained her ends with the complete cooperation of relatives.

During the year we have, as usual, made complete social investigations in all cases admitted under Section 77 and Section 100 of Chapter 123 of the General Laws. This is done primarily to assist the physician in determining the presence or absence of a psychosis and, if present, to follow the social leads in gathering material for a diagnosis. This year eighty-six cases were studied under Section 77, and thirty-four under Section 100. About half of those under Section 77 were committed. Thirty-one criminals were returned to the court for some other social disposition of their cases, and only three needed commitment. As usual, much time and effort have been spent in locating relatives to assume responsibility for patients. Boston presents a peculiar problem in this matter. Our South End district, from which we draw many patients, is peopled largely by individuals without homes, friends or money. Nevertheless, our search in this crowded section often reveals an unsuspected friend or the existence of funds available for burial purposes. From a practical standpoint of saving money for the hospital, the department proves its worth in this field of effort. We continue to try to find time to supervise our patients on visit, but with the many demands for other forms of service this division of our work is still very much undeveloped. We need more workers for this and for other reasons. The arrangement of our hospital buildings requires workers at every strategic point, in the East Group, in the West Group, and at the Psychiatric Clinic, to handle the needs of patients under regular commitment, exclusive of observation cases. One worker could use her entire time searching the hospital for patients who are well enough to go out but who have no advocates to urge their release or to provide means of living for them in the community. This is peculiarly the task of a social worker in a large hospital. This fall we have undertaken to assist the South Boston Court with their juvenile delinquents. The law provides for a psychiatric examination, but social investigation has not been required. Our own physicians have complained of the need of social data to understand their cases and to make recommendations. At the same time, the probation officers were becoming increasingly aware of the insufficiency of case material. This brought about the present arrangement, whereby each juvenile delinquent appearing in the South Boston Court is known to the head social worker and case material is gathered and studied. As with mental disease, the causes of delinquency

are looked for in the social stresses as well as in the individual makeup. The results so far are most interesting. The cooperation of the probation office and the social agencies of South Boston is gratifying. The need of such psychiatric social service in the Court is quite obvious for intelligent disposition of cases. Since the statutes provide that this work be performed by the staffs of the mental hospitals, however, there is urgent need for increased personnel.

The following table shows the movement of patients under supervision, and the social work done during the year:

	<i>Males</i>	<i>Females</i>	<i>Total</i>
In family care September 30, 1935 . . . . .	—	13	13
On visit September 30, 1935 . . . . .	111	121	232
On escape September 30, 1935 . . . . .	3	—	3
Dismissed to family care during the year . . . . .	—	15	15
Went out on visit during the year . . . . .	823	376	1,199
Escaped during the year . . . . .	10	1	11
Admitted from family care . . . . .	—	12	12
Admitted from visit . . . . .	706	242	948
Admitted from escape . . . . .	9	—	9
Admitted from family care and discharged . . . . .	—	1	1
Admitted from visit and discharged . . . . .	104	104	208
Admitted from escape and discharged . . . . .	3	—	3
In family care September 30, 1936 . . . . .	—	15	15
On visit September 30, 1936 . . . . .	124	151	275
On escape September 30, 1936 . . . . .	1	1	2
Total number of cases considered . . . . .	382	588	970
New cases . . . . .	355	432	787
Renewed cases within the year . . . . .	11	43	54
Renewed cases from previous years . . . . .	10	55	65
Continued cases from previous year . . . . .	6	58	64
Cases closed during the year . . . . .	372	531	903
Cases continued to following year . . . . .	10	57	67

#### PATHOLOGICAL LABORATORY

Dr. Naomi Raskin, who has been pathologist for several years, has carried on the work of the pathological laboratory during the past year, with the assistance of two laboratory technicians and one volunteer worker. The following is a summary of the routine work done during the year: autopsies, 262; abdominal fluid examinations, 4; ascitic fluid examination, 1; blood examinations — red counts, 172, white counts, 207, differential counts, 209, hemoglobin estimations, 172, clotting time, 1, reticulocyte count, 1; blood sugar determinations, 470; chest fluid examinations, 4; cholesterol determinations, 5; cultures, 18; gastric content examinations, 12; guinea pig inoculation, 1; icteric indices, 5; non-protein nitrogen determinations, 10; sedimentation rate determinations, 2; spinal fluid examinations, 177; spinal fluid sugar examinations, 24; sputum examinations, 103; stool examinations, 17; tissue sections — celloidin, 123; frozen, 507, autopsy, 7,475, surgical, 10; urinalyses, 1,411; and Van den Bergh tests, 2.

The number of deaths during the year was 353, 262 of which came to autopsy, making the autopsy percentage 74.22 for the year.

#### DENTISTRY

The dental work of the hospital has been carried on throughout the year by Dr. George S. Rileigh, resident dentist, with the aid of one dental assistant. Each patient is given a thorough examination within a few days after his admission, and his condition carefully recorded, the various items requiring attention being indicated on a chart. Continued use has been made of ether and nitrous oxide as general anesthetics in cases where a local anesthetic has been contraindicated. The use of gauze drains, curetting of diseased tooth sockets, and suturing have been the regular procedure in surgical extraction of teeth. An effort is made in this department to restore the mouth to a normal healthy condition, as far as possible. The use of condensite plates has been continued. During the year there has been a considerable increase in work done in connection with Vincent's

infection. Smears have been taken in suspicious cases, and treatment given when required. The work done in this department during the year was as follows: examinations, 1,696; extractions, 1,689; Fillings, 802; prophylaxis, 984; restorations, 769, treatments, 1,826; number of patients treated, 2,825.

#### PHYSIOTHERAPY AND X-RAY DEPARTMENT

The work of the physiotherapy and X-ray department, which has been of great assistance in diagnosis and treatment, has been very efficiently carried on during the year by a trained physiotherapist and X-ray technician, Miss Gertrude E. Gray, now Mrs. Moses, with no assistant. During the year 1,549 treatments were given, 1,097 to male patients and 452 to female patients. The total number of different patients treated was 75, 47 male and 28 female. The treatments were as follows: ultra violet ray, 1,019; infra red ray, 148; diathermy, 171; autocondensation, 19; sinusoidal, 97, massage, 95. The total number of X-ray examinations was 734, 475 patients and 218 employees were examined. Fluoroscopic examinations totalling 521 were made on 507 patients. I wish to commend the excellent work done in this department.

#### HYDROTHERAPY

During the year, the work of the hydrotherapy department has been carried on under the direction of Miss Anna M. Cox, R.N., the work in the East Group being supervised by Mrs. Helena B. Hubbard, with Mr. Frederick Baril, a trained hydrotherapist, in charge of the work in the male services. During this period, 7,671 continuous baths were given to 133 different patients — an average of 57.70 per patient, and a daily average of 20.96. There were 21,095 wet sheet packs given to 186 different patients — an average of 113.36 per patient, and a daily average of 57.64. Tonic treatments to the number of 7,336 were given to 103 different patients — an average of 71.22 per patient, and a daily average of 20.04. These treatments were as follows: salt glows, 629; saline baths, 238; hot and cold to spine, 130; Sitz baths, 670; foot baths as preparatory treatments, 10; electric light baths, 9; shampoos, 502; hair shampoos, 209; pail douches, 33; rain douches, 35; needle sprays, 2,195; fan douches, 1,628; and jet douches, 1,048. The following treatments were given to patients receiving packs in the East Group; needle sprays, 3,205; tub shampoos, 512; and hair shampoos, 512. The usual instruction was given during the year, there being 88 lessons.

#### SCHOOL CLINIC

During the year, the work of the school clinic was carried on under the direction of Dr. Alberta S. Guibord, with the assistance of the psychometrist, Mrs. Edith B. James. On May 27th the school clinic suffered an inestimable loss in the death of Dr. Guibord. The work of the school year was completed under Mrs. James. As in past years, considerable assistance has been given by Miss Winifred N. Ford, a specially trained teacher, of Somerville, who made the educational tests in that city, and Mrs. Ruth B. Morse, a specially trained teacher, who made the educational tests in Everett. The social service work was done by members of the hospital social service department, under the direction of Miss Florence E. Armstrong, and by Miss Rose J. Cairnes, visiting teacher from Somerville.

During the school year, 395 pupils in the public schools of Somerville and Everett were examined. The intelligence rating in these cases was as follows: superior, 1; normal, 57; dull normal, 99; borderline, 136; defective, 81; and undiagnosed, 21. The following recommendations were made: special class, 142; institution care, 17; other educational measures, 263. Pupils were referred to the clinic for the following reasons: retardation, 324; school problem, 38; behavior problem, 13; social, 1; personality, 10; physical, 4; psychiatric, 2; and others, 3. Recommendations for medical attention were made as follows: general nutrition, 135; nose and throat, 93; dental, 98; visual, 75; hearing, 18; speech, 11; cardiac, 48; orthopedic, 31; neurologic, 5; general medical, 28.

The work of the school clinic is still handicapped by the fact that much of the time of the psychometrist is devoted to Juvenile Court examinations. The school clinic receives, on the average, two and one-half of the five and one-half working days per week. In this amount of time the psychometrist cannot accomplish her



share of the school clinic work. In the past year the cities of Somerville and Everett have come to our aid by providing the services of Mrs. Ruth B. Morse and Miss Winifred M. Ford to complete the psychometric examinations. The school clinic is becoming more and more useful to the public, not only in placing school children, but also in advising upon the management of the prepsychotic and predelinquent children tested. For these reasons we feel that an adequate number of workers should be supplied, and urge the appointment of a full-time psychometrist and a full-time social worker. Dr. Constance G. Hartwell assumed the duties of assistant physician in charge of the school clinic on August 17, 1936.

#### TRAINING SCHOOL FOR NURSES

As in the past several years, Miss Mary Alice McMahon, R. N., Principal of the School of Nursing, has had charge of the nursing service of the hospital. In 1936, the training school for psychiatric nurses graduated twenty students. Since this school was organized, there have been sixty-two graduates, forty of whom are now employed in this hospital. Previous to this year, all applicants for this training have been High School graduates. At the present time, however, many have had only two years of High School. The course was made available last year to men as well as women, and four men will complete the training in October, 1937. There are, however, no other men in the school at the present time. The course for psychiatric nurses was made elective during the past year. The enrollment for the seventh year includes fifty-two in the junior class and fourteen in the senior class, a total of sixty-six. The practical work includes instruction and nursing care, in the wards, of patients suffering from the various types of mental disease. Special attention is given to the nursing care of patients showing symptoms of excitement, depression, confusion, suicidal and homicidal tendencies, and epilepsy. Each student receives special instruction in medical and surgical nursing, and practical work with acute and chronic bed cases. Practical instruction is also given in hydrotherapy, the preparation and serving of food, the preparation of surgical dressings, and assisting at operations, etc. Lectures, recitations, and demonstrations are held according to schedule. When the term of two years is completed, the pupils are thoroughly qualified, and they receive, if their conduct and examinations have been satisfactory, a certificate to that effect. The graduates of this course are added to the list of eligibles for promotion in the hospitals.

The systematic instruction of attendant nurses, both male and female, not enrolled in other training school classes, is being conducted along the lines prescribed by the Committee on Training Schools, representing the Department of Mental Diseases, and have received such instruction during the year. We have now in the ward service seven graduates of the Boston State Hospital Training School. Twenty-seven ward employees represent training schools of twelve other hospitals. On July 23, 1936, after long and faithful service as chief supervisor of the male ward service, Mr. Henry T. Shay, died, after an illness of several months duration. He was succeeded in the position of chief male supervisor by Mr. Hector Noel, R.N., who now has charge of the male ward service of the hospital.

#### OCCUPATIONS AND INDUSTRIES

The Occupational therapy department has continued throughout the year under the direction of Miss Ethel M. Anderson, head occupational therapist, with ten other occupational therapists, two at the Psychiatric Clinic, three at the East Group, three at the West Group, and one acting as director of physical education for the entire institution. At the present time there is one vacancy in the position of occupational therapist. There has been, as usual, one male attendant nurse assigned to occupational therapy in the West Group and another one could be used with profit at the Psychiatric Clinic. The average daily number of patients engaged in occupational therapy during the year was 269, with a total monthly contact of 576 different patients. Activity has been carried on with all available patients. Chronic senile female patients have had knitting, sewing, crocheting, etc., carried to them on the wards in both the East Group and the West Group; others better able to travel over the stairs, both men and women, have attended the occupational therapy classrooms in the West F and West B basements respectively for rug making, light forms of woodwork, etc. During the summer season,

all men and women unable to do more were all-day spectators at the ball games and other sports carried on by the younger and more active men of the West C and D Buildings and the Psychiatric Clinic. Groups of the chronic disturbed and semi-disturbed women also strolled about the grounds and participated in their own games and amusements — modified baseball, beanbag, and other sports. The work at the Psychiatric Clinic has been spontaneous and varied. Realizing that many of these people have asocial tendencies, a "good mixer" program has been attempted. Both male and female patients have played whist, bridge, and "monopoly", and have been engaged together in dancing, carol singing, and even dish-washing after the weekly social gatherings. Group and individual initiative have been encouraged by allowing the patients, always under careful supervision, to manage their own parties, decorating the tables, assembling the accessories, and making the bridge prizes which are awarded. Regular classes have been held as usual in the classrooms for the patients less in contact with everyday life. Other special events have been: a play, Dickens' "Christmas Carol", given by the patients at the Clinic at Christmas time; "monopoly", played with great interest by the men of West D and West G; "beano", which they had heard about but could not understand until the demonstration, by female patients in East C-2; and an old-fashioned minuet, given by the female patients of the Clinic on Field Day. Whist parties for groups in West A and West D, as well as in three buildings in the East Group, continued to be popular; four outdoor "Weenie roasts" were greatly appreciated during the summer season; a monthly two-sheet hospital paper for patients had its time of interest; a number of Hallowe'en parties were held in the East Group for those patients unable to attend the big hospital Hallowe'en dance; and a well-attended weekly gymnastic class for active female patients has been started in the East Group chapel. The estimated value of articles produced during the year was \$1,667.90 and of repairs, \$21.30 a total of \$1,689.20.

At the Psychiatric Clinic, Mr. Joseph G. Cowell of Wrentham has continued the weekly art class, inaugurated by him in November 1934, throughout the year. The total number of patients receiving the benefit of this form of treatment was 48, 16 male and 32 female. Of this number, 24 have been discharged, 7 male and 17 female. Although the proportion of those discharged to the total number treated remains about the same as during the preceding two years, certain progress has been made in recording the effects of the treatment on different types of disease, the various kinds of work produced in relation to diagnosis, and in relation to course of disease. While the data thus recorded point to very interesting and promising speculations, it would be unwise to try to draw any conclusions from the limited number of cases under observation. We are greatly indebted to Mr. Cowell for his continued active interest in this work, for which he receives no remuneration whatever.

The work of the industrial room for women has been carried on throughout the year under the direction of Miss Constance Crook. The patients are engaged in basketry, rug making, lace making, embroidery, knitting, crocheting, sewing, and mending. Some pottery work has been done during the year, also. The estimated value of the articles produced in this department during the year is \$1,372.82, and in the sewing room \$4,486.78 (a total of \$5,859.60), exclusive of mending, the value of which is estimated at \$3,701.65, making a total of \$9,561.25. Mr. James F. Hurley has continued in charge of the industrial work for the men throughout the year, as in several years past. This work consists of shoe repairing and various other repair work, the manufacture of several kinds of brushes, brooms, coat hangers hats, mattresses, pillows, and numerous other articles, and is carried on entirely in the basement of the B Building in the West Group. The estimated value of articles produced during the year is \$5,974.50, and of renovations and repairs, \$7,594.75, a total of \$13,569.25. The estimated value of all articles produced during the year is \$13,502.00 and of renovations and repairs, \$11,317.70, making a total of \$24,819.70.

## OCCUPATIONAL THERAPY CENTER AT CITY MILLS, MASSACHUSETTS

The Occupational Therapy Center at City Mills has continued for another year under the general supervision and direction of Miss Florence E. Armstrong, the head social worker. With Mrs. Gay's excellent oversight, our patients have been well cared for and no case of physical illness has occurred worthy of mention. The number of patients has varied from seven to eleven. On festival occasions, Mrs. Gay has had parties for their pleasure, and every major holiday is observed with due gaiety. Miss Isabel White resigned her position in charge of the occupational therapy, much to the regret of Mrs. Gay, the patients and the supervisor. Her attitude toward her work and toward the patients, and her accomplishment, were all that we could desire. She was succeeded by Miss Izola Prohaska, who was trained last year for psychiatric social service in this hospital. Miss Prohaska has adjusted herself easily to the requirements of this position and is happily suited to dealing with our patients, either in everyday living with them or from a social service standpoint. We have continued to emphasize the Center as a social service feature, as it has logically developed that way. Often our patients are placed there for the special purpose of observing their behavior in a home, as preparation for forecasting their conduct in working homes. With this closer understanding of the patient, which cannot be obtained in the peculiar surroundings of the hospital, we have been able to make successful placements in homes and in the community. The sale of articles made by the patients, which has been going on throughout the year and which culminated in a Christmas sale this fall, brought at least \$400 to the treasury. This is used to repay the cost of materials, and permits the patients some spending money in return for their handiwork. Since we always emphasize the importance of selling our wares, there is no useless stuff produced. Due principally to the fact that the economic depression is past, our intake has been much better than in several years. People are buying again.

## AGRICULTURAL ACTIVITIES FOR THE YEAR

The direction of the farm work has continued throughout the year in charge of Mr. Ralph B. Littlefield, head farmer. A total of 110.63 acres was under cultivation. This consisted of 38.25 acres devoted to gardening and 72.48 acres of meadowland. The estimated value of farm products for the year was \$15,761.19.

## GENERAL OPERATIONS FOR THE YEAR

On Christmas Eve, the usual concert was given in the East Group chapel. Music was provided by a group of five, consisting of flute, cello, violin, clarinet, and piano, assisted by a soprano soloist. Religious services, both Catholic and Protestant, were held at both groups on Christmas morning, and there was the usual distribution of candy, fruit, and gifts by the occupational therapists. On account of the 48-hour-week schedule, it was necessary to omit the early morning singing of carols by nurses. A turkey dinner was served to patients and employees. On June 25, the annual Field Day for patients and employees was held at the field in the West Group. There was a program of games and athletic events, with prizes, and light refreshments. Patients from the East Group were transported by Boston Elevated busses. The Milton Post American Legion Band furnished music. As in past years, the expense was defrayed by the Employees' Club. The usual motion picture entertainments were given and occasional dances as in the past. On Thanksgiving Day a complete turkey dinner was served to both patients and employees.

Religious services have been continued throughout the year by Rev. Frederick G. M. Driscoll, Rev. Harold Cramer, Rev. Frank H. Stedman, and Rabbi Moses L. Sedar. We appreciate thoroughly their constant and active interest in the welfare of the patients.

On November 17, a transfer of 61 women patients was made, as follows: 49 to the Metropolitan State Hospital, 10 to the Grafton State Hospital, one to Monson State Hospital, and one to Medfield State Hospital.

During the year the carpenters erected 316 curtain rods in the new West Male Employees' Building and the West Office Building; constructed wind breakers outside of the Employees' Club; constructed a storm cabin to be mounted on the caterpillar tractor; renovated the floors and stairways in the West Domestic

Cottage; rebuilt the porch on the East Nurses' Home; and constructed sixty park benches for patients.

In December, the masons poured about 280 feet of curbing in front of the West Male Employees' Building, and rebuilt five brick piers; in February they repaired refrigerators in the East Kitchen, and in March refinished four ceilings in West C Building. They also constructed forty-seven manholes during the spring and summer.

The following painting was done during the year:

*East Group:* penthouse on roof of laundry building, interior of East A, C, E, F, and G Buildings, and industrial room, and refinishing of floors in East E and F Buildings.

*West Group:* Interior of West Domestic Cottage, West G Building, West Center, and Assistant Superintendent's house; interior and exterior of West B Building; exterior of Superintendent's house and exterior trim of West H Building; renovation of the West Kitchen and Dining Room Building, and an apartment in the West F Building occupied at that time by Dr. LeDrew. The flagpoles were also painted.

Emergency repairs were made to an 8-inch water feed line to the West Group. This was found to be leaking at 11:30 one night in December, in the rear of the West Staff Building.

The following work was done under the Works Progress Administration project:

*East Group:* The entire East Group, from East F Building to the new entrance on Paxton Street, has been regraded. The space between the nurses' home and the East Office Building has been filled in with 150,000 cubic feet of earth, thus placing this area on the same grade as the East Office Building, adding materially to the beauty of that section of the grounds. The new roadway from Paxton Street is now completed, with sidewalks and curb. This road continues around to the end of the F Building. A project has been submitted to complete this work. The northeasterly section of the East Group has been regraded. This will eliminate the spring flooding of the basement of the East Office Building.

*West Group:* The entire roadway facing the Employees' Building has been finished. Sidewalks have been laid and electric lamp posts erected. Due to lack of funds, we have not been in a position to wire these lamp posts. The road extending from the G Building in front of F, D, C, nurses' home, B, and A Buildings is now completed, including the regrading of the entire section from the West Kitchen and Dining Room Building. Sidewalks have been laid along the entire length of the new Tuberculosis Building, and the roadway in the front and rear has been completed.

The power house was completed and in full operation on December 30, 1935.

The West Male Employees' Building was completed April 30, 1935, and occupied on December 28, 1935. All employees have now been removed from the attics and ward buildings in the West Group. The space in the second floor of the West F Building vacated by male employees is to be used for contagious diseases, surgical, and other emergencies.

The old Fottler house, now used for clerical purposes by the Works Progress Administration, will be torn down as soon as it has served its present purpose.

The three new officers' cottages, Nos. 1, 2, and 3, were opened on December 23, 28, and 31 respectively. These cottages are occupied by Drs. LeDrew, Osgood, and Schube, and their families.

The road in the rear of these buildings was completed in December.

The erection of additional iron fencing around the grounds of the hospital was begun on December 31, and 4,210 feet was installed.

On December 23, an assistant steward was appointed for the first time at this institution.

Inspectors Atkinson and Ryan of the Department of Public Safety made an inspection of the provisions for fire protection at the hospital from January 13 to January 24.

In January the entrance to the grounds of the East Group from the American Legion Highway was widened.

During the year, sprinklers have been installed in all the ward buildings of both the East and the West Group, with the exception of the Psychiatric Clinic and the Tuberculosis Building, also in the nurses' home, chapel, bakery, storehouse, power

house, laundry, and carpenter shop, in the East Group, and the West Center, nurses' home, and Domestic Cottage in the West Group.

New controls have been installed on the continuous bath tubs in the West A Building.

The name of the attendants' cottage in the West Group has been changed officially to West Domestic Cottage, and the new building for tuberculous patients is officially designated as the Tuberculosis Building. The new building for male employees is the West Male Employees' Building, and the new building housing the offices of the West Group and certain employees is officially designated the West Office Building. The West Group medical offices were moved from the old administration building to this latter building on February 19, 1936.

Under the direction of Mr. Boyd, of the Department of Mental Diseases, the plumbers and steamfitters have set testing apparatus in the basement of the West Employees' Building for the testing of anti-scald mixing valves. This was done during the month of March.

The first patients were moved into the new Tuberculosis Building on March 17. It was impossible to occupy two small wards in the building because of the inadequate number of nurses authorized.

The stone wall around the triangle between Canterbury Street, Morton Street, and the American Legion Highway was rebuilt by W.P.A. workers during April.

The old piggery is now in process of demolition, the last pigs having been disposed of on October 19, 1936.

Anti-scald devices were installed by the plumbers and steamfitters during the summer in all the patients' buildings and the East Nurses' Home, the West Office Building, and the West Male Employees' Building.

A small garage was constructed in the West Group near Canterbury Street by the carpenters and masons.

L. Nawn, Incorporated, was awarded the contract to repair the verandas on the East C Building, for the sum of \$1,485. This work was completed on October 18, 1936.

Three new trucks, a new automobile and a new ambulance were purchased during the summer.

A new ration allowance has been authorized by the Department of Mental Diseases for use in computing the food budget for the coming year.

On the morning of July 24, the East A and B Buildings and the West B Building were visited by Governor Curley.

During September, ten new electric refrigerators were installed by the electricians — four in the East Group and six in the West Group.

A contract for the installation of an employees' cafeteria in the West Kitchen and Dining Room Building was awarded in November to the Morandi Proctor Company in the sum of \$3,678, furnished and installed.

Work has been done on the Canterbury Branch of Stony Brook in the hospital grounds by the Works Progress Administration, but not on a hospital project.

On September 16, 1936, the hospital was visited by the Commissioner and Associate Commissioners of the Department of Mental Diseases, accompanied by Dr. Barrett, Assistant Commissioner, and at various times during the year representatives of the Department have made visits to the institution.

#### DEVELOPMENT OF THE HOSPITAL

The following list of items for special appropriations for construction to cover the needs of the hospital for the next twenty-five years was submitted to the Department of Mental Diseases:

1. Placing Electric Wires Underground, and New Steam Line from East to West Group . . . . .	\$121,500
2. Assembly Hall . . . . .	192,000
3. Sewage and Surface Draining System . . . . .	25,000
4. Laundry Equipment . . . . .	32,852
5. Three Officers' Cottages . . . . .	55,000
6. Paint Shop . . . . .	16,000
7. Salvage Yard . . . . .	12,000
8. Industrial Building . . . . .	40,000

9. Additional Story on Laboratory Building . . . . .	23,000
10. Storehouse (farm equipment) . . . . .	10,000
11. Remodelling Heating Plant . . . . .	14,470
East G Building, \$8,970	
West A Building, \$5,500	
12. Replacement of Stucco Buildings (total for construction, \$2,364,500):	
East Group:	
a. East A Building, 76 patients . . . . .	175,000
b. East E and F Buildings, 200 patients . . . . .	490,000
c. East Kitchen and Dining Room Building . . . . .	300,000
d. Remodelling old East D. R. Building for storage purposes . . . . .	75,000
e. East Fire House . . . . .	6,000
West Group:	
f. West C Building, 170 patients . . . . .	435,000
g. West D Building, 170 patients . . . . .	435,000
h. West Staff House . . . . .	85,000
i. West Kitchen and Dining Room Building . . . . .	350,000
j. Temporary addition to present West Kitchen and Dining Room Building . . . . .	7,500
k. West Fire House . . . . .	6,000
13. Razing all stucco buildings . . . . .	60,000
<b>Total . . . . .</b>	<b>\$2,966,322</b>

*Placing Electric Wires Underground, and New Steam Line from East to West Group:* — Electric current is generated at the East Group and the wiring for this group of buildings is now underground. The high tension current for the West Group, one mile distant, is carried by overhead wires on wooden poles. This line crosses Morton Street, a much traveled highway. It is necessary to renew poles constantly, and during stormy weather in the winter the line breaks frequently, causing the major part of the institution to be in darkness. This is a very serious condition because there are over seventeen hundred infirm, sick, and disturbed patients occupying buildings in this Group. The crossing of the highway by this line is a potential danger to the public, and perhaps a greater danger to the patients who work in the grounds and fields through which this line runs. If the line were underground, all of these risks would be avoided.

The West Group is now supplied with steam through two mains, forming a loop. One of these is an 8-inch supply with a 3-inch return, while the other is a 6-inch supply with a 2½-inch return. Owing to the development of the institution and the increase in the number of buildings in the West Group, the present steam mains are somewhat overloaded for safe and economical operation. If there is any interruption of service in the 8-inch main (and this has occurred at various times in the past), the 6-inch line is not large enough to supply steam for heating, hot water, cooking, etc., during the winter. The return line is not large enough to carry the water condensation if one return is out of commission. Supplying heat for the 1,700 patients and 200 employees of the West Group is a matter of vital importance, and a new steam main should be put in, running directly from the power house in the East Group to the West Group, at the earliest possible opportunity. This would involve two items, as follows:

New trunk line from power house to Pit No. 18 . . . . .	\$55,000
Future extensions to Pits No. 12 and No. 20 . . . . .	17,250
<b>Total . . . . .</b>	<b>\$72,250</b>

*Assembly Hall.* — This is probably the only institution in the State that has no centrally located assembly hall for the use of patients. We have a small chapel in the West Group which accommodates approximately 225 patients, in a group housing over 1,700. This takes up space which is badly needed for other purposes, and it was built at a time when the West Group cared for about 300 patients. There is a small chapel building in the East Group, which is large enough for that part

of the hospital alone, but is not adequate to the needs of the entire institution, with a population of over 2,300. The result of this arrangement is that a large number of our patients have to be brought over after dark from the West Group to the East Group for moving picture shows, dances, and other entertainments. Very frequently this results in escapes, the ward employees being unable to keep track of so many patients on the grounds, which are not adequately lighted on the way from the East Group to the West. Owing to these circumstances, there is a large number of patients who never have any opportunity to go to our entertainments at all. This state of affairs should be remedied by the erection of a centrally located assembly hall on the grounds of the West Group, — one which will be of sufficient size for 1,200 people. It should, of course, be large enough to accommodate all the patients who can be taken to entertainments.

Since the adoption of the 48-hour-a-week schedule, the number of employees in the West Group has increased from approximately 340 to 470. The facilities of the chapel are not adequate to the proper arrangements for religious services as desired by the priest. It has been necessary temporarily to hold two masses on Sunday morning instead of one. This complicates the situation seriously, not only for the priest, but for the hospital.

*Sewage and Surface Draining System.* — The sewage system of the hospital is antiquated, and extensive changes should be made at as early a date as possible. There never has been any surface draining system, the drain pipes around the various buildings running out to the adjoining lower levels of the hospital property. These should all be connected up into one system and empty into the Canterbury Branch of Stony Brook. The new buildings in the development of the hospital render these changes very necessary.

*Laundry Equipment.* — The following laundry equipment is very badly needed:

Shirt unit:

2 cuff presses at \$250 . . . . .	\$500
1 collar and neckband press . . . . .	250
1 body and bosom press . . . . .	850
1 sleeve form press . . . . .	125
1 finishing table . . . . .	57

Presses:

Four (4) air-driven presses as follows:

2 No. 55 presses at \$650 . . . . .	1,300
2 No. 5133 presses at \$525 . . . . .	1,050

Ironer:

1 6-roll 120-inch ironer complete with Hamilton spring padding and full vacuum features . . . . .	8,270
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Washers:

2 washers, 48" x 84", at \$7,100 . . . . .	14,200
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Tumblers:

2 American dry tumblers, 42" x 90", 2 compartments, double motor driven, at \$3,125 . . . . .	6,250
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Total . . . . .	\$32,852
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*Three Officers' Cottages.* — The hospital has never had adequate facilities for living quarters for members of the staff who are married and have families. Additional cottages are very badly needed, and three more are requested at an estimated total cost of \$55,000.

*Paint Shop.* — The present paint shop is located in the basement of the laundry building, the third floor of which is used as an industrial room. This is a violation of the laws of the State. The paint shop should be located in a separate structure and its presence in any of our existing buildings constitutes a fire menace which should be removed as soon as possible.

*Salvage Yard.* — The hospital has never been provided with a salvage yard. As the older buildings are torn down we have salvaged a lot of valuable lumber, but it has to stand outside subject to the summer rains and winter snows. This should all be stored where some protection can be afforded it. A salvage yard similar to those which have been provided for other hospitals during the last ten years or more is very much to be desired.

*Industrial Building.* — At the present time, our industrial work at the West Group is done in the basement of the women's infirmary building (West B), which has a capacity of 430 beds. The wards of this building are used for aged, infirm, and bed-ridden patients, a type which would be practically helpless in case of fire. The industrial shop in the basement beneath not only is too small for its purpose, but offers a serious fire menace in that it contains a large amount of inflammable material such as broom corn, reed, raffia, mattresses, etc. This arrangement has been criticized repeatedly by the Department of Public Safety and by the fire officials of the City of Boston. It cannot be defended, and should be remedied at the earliest possible moment. A building entirely separate from a ward building is the only satisfactory solution to this problem.

*Additional Story on Laboratory Building.* — With the elaboration of the research work which is going on here under the direction of the Department, it is already very obvious that a third floor should be added to the present laboratory and research building.

*Storehouse (farm equipment).* — This is necessary to protect the property of the Commonwealth. We have never had any place to store farm equipment, and much of it is left outside the year round, with the natural result that it deteriorates rapidly. A storehouse for this purpose would be a source of considerable economy.

*Remodelling Heating Plant, East G and West A Buildings.* — These buildings are heated by indirect radiation and so much dirt is blown into the wards that the cost of keeping the buildings painted is too great. Air filters should be installed in the basements, which will make the operation of these buildings much more economical.

*Replacement of Stucco Buildings.* — These stucco buildings have wooden floors, wooden stairways, an obsolete system of electric wiring, and cannot be provided with any adequate means of fire protection. The Fire Commissioner of the City of Boston has recommended "That all the old buildings, wooden and stucco covered, should be demolished and buildings of 1st class fireproof construction be erected in their stead. . . . These recommendations, which may appear extensive are an urgent necessity and based on the nature of the occupancy, and the character of the construction which is hardly fit for persons of normal physical and mental conditions." These buildings constitute a fire menace and should, in justice to our patients, be removed and replaced by fireproof structures. They house over 600 patients. One of the worst of the old stucco buildings is the old West Group Office Building, now known as the West Center. Like all the others, it has wooden stairways and wooden floors. In replacing this building it will be desirable to build a West Group Staff House which will furnish kitchen and dining room facilities for all of the doctors of the West Group except those who will occupy cottages. It should also have accommodations for 4 physicians and 6 interns.

The West Group Kitchen and Dining Room Building has never been satisfactory. It would be very desirable to furnish cafeteria service to the patients who are eating in that place. As a part of the general replacement of the stucco buildings, a new Kitchen and Dining Room Building should be erected where the present West Group Center (formerly the old office building) is now located. Such an arrangement would make it possible for the male patients to go in through tunnels from both the West C and the West D Buildings.

When the old West Group office building is torn down, it will be necessary to provide accommodations for 50 employees eating there. This can be done in the form of a temporary structure which can be removed when the new kitchen and dining room is completed, if this program is carried out.

The removal of the old administration building in the East Group has made it possible now to build a new Kitchen and Dining Room Building which can be connected by means of tunnels with the East F and East A Buildings. This would put the kitchen and dining room building in a place where it should be. The present building has never been entirely satisfactory. It would also make it possible to remodel the existing Kitchen and Dining Room Building for the purpose of furnishing additional storage capacity adjoining the old storehouse. This is something that has been very badly needed for years. It has been necessary to store things in the basements of buildings — an undesirable arrangement which should be done away with as soon as possible. The old kitchen and dining room



building would lend itself very effectively to this plan and would furnish excellent storage capacity in a place where it is needed.

Two small brick buildings, one for the East and one for the West Group, should be built to house the fire equipment which is very necessary for the protection of the hospital property.

*Razing All Stucco Buildings.*— The sum of \$60,000 should be provided for razing all of the old stucco buildings as the new ones are finished.

Respectfully submitted,

JAMES V. MAY,

*Superintendent.*

### VALUATION

November 30, 1936

REAL ESTATE		
Land, 224.66 acres . . . . .		\$974,100.00
Buildings and betterments . . . . .		3,892,555.80
		<hr/>
		\$4,866,655.80
PROPERTY		
Travel, transportation and office expenses . . . . .		\$673.18
Food . . . . .		12,007.63
Clothing and materials . . . . .		35,447.18
Furnishings and household supplies . . . . .		295,377.70
Medical and general care . . . . .		17,436.54
Heat and other plant operation . . . . .		8,172.71
Farm . . . . .		9,179.40
Garage and grounds . . . . .		12,883.93
Repairs . . . . .		9,864.92
		<hr/>
		\$401,043.19
SUMMARY		
Real estate . . . . .		\$4,866,655.80
Personal property . . . . .		401,043.19
		<hr/>
		\$5,267,698.99

### FINANCIAL STATEMENT

*To the Department of Mental Diseases:*

I respectfully submit the following report of the finances of this institution for the year ending November 30, 1936.

STATEMENT OF EARNINGS		
Board of Patients . . . . .		\$86,092.87
Personal Services . . . . .		297.00
Sales:		
Travel, transportation and office expenses . . . . .	\$141.92	
Food . . . . .	150.32	
Furnishings and household supplies . . . . .	9.13	
Medical and general care . . . . .	.45	
Repairs ordinary . . . . .	75.99	
Farm (1 boar, \$5.00; 1 horse, \$50.00; 31 pigs, \$62.00) . . . . .	117.00	
	<hr/>	
Total Sales . . . . .		494.81
Miscellaneous:		
Rents . . . . .	\$40.00	
Interest on Patients' Fund . . . . .	93.04	
	<hr/>	
Total Miscellaneous . . . . .		133.04
		<hr/>
Total earnings for the year . . . . .		\$87,017.72
Total cash receipts reverting and transferred to the State Treasurer . . . . .		87,017.72
MAINTENANCE APPROPRIATION		
Balance from previous year, brought forward . . . . .		\$28,880.60
Appropriation, current year . . . . .		1,108,260.00
		<hr/>
Total . . . . .		\$1,137,140.60
Expenditures as Follows:		
Personal services . . . . .	\$648,945.12	
Food . . . . .	194,419.94	
Medical and general care . . . . .	24,744.37	
Religious instruction . . . . .	2,080.00	
Farm . . . . .	4,984.88	
Heat and other plant operation . . . . .	82,626.75	
Travel, transportation and office expenses . . . . .	7,987.34	
Garage and grounds (garage \$6,215.67; grounds \$5,067.51) . . . . .	11,283.18	
Clothing and materials . . . . .	24,946.16	
Furnishings and household supplies . . . . .	34,275.56	
Repairs ordinary . . . . .	14,519.00	
Repairs and renewals . . . . .	14,031.45	
	<hr/>	
Total Maintenance expenditures . . . . .		\$1,064,843.75
		<hr/>
Balance of maintenance appropriation, November 30, 1936 . . . . .		\$72,296.85

## SPECIAL APPROPRIATIONS

Balance December 1, 1935, brought forward		\$308,917.16
Appropriations for current year		31,500.00
Total		\$340,417.16
Expended during the year (see statement below)	\$218,139.15	
Deductions made on appropriations	47,336.00	
		265,475.15
Balance November 30, 1936, carried to next year		\$74,942.01

APPROPRIATION	Act or Resolve Yr. Chap.	Total Amount Appropriated	Expended during fiscal year	Total Expended to date	Balance at end of year
Reception building, equip- ment	1931-268	\$400,000.00	—	\$399,356.10	\$643.90
Mass. State Project No. M-2 Docket 960, power plant		422,000.00	\$47,425.83	381,165.80	40,834.20
Mass. State Project No. M-4 Docket 959, male employees' building		245,170.04	2,286.44	245,170.04	—
Mass. State Project No. M-5 Docket 976, employees' and officers' building		133,461.64	1,211.85	133,461.64	—
Mass. State Project No. M-29 Docket 1944, laboratory and mortuary building		72,500.00	3,275.21	64,489.85	8,010.15
Mass. State Project No. M-3 Docket 2658, tuberculosis pavilion		173,000.00	13,534.07	171,817.88	1,182.12
Mass. State Project No. M-6 Docket 2065, three officers' cottages		52,000.00	3,858.32	46,954.81	5,045.19
Mass. State Project No. M-4A and M-5A, Docket 1991, furniture and equipment, M-4 and furn. and equip. M-5		43,000.00	41,795.28	42,404.10	595.90
Iron fence	1935-249	13,000.00	8,649.65	8,686.91	4,313.09
Mass. State Project No. M- 111 Docket 1151, sprinklers		79,000.00	66,632.76	66,712.80	12,287.20
Laundry equipment	1936-304	1,500.00	—	—	1,500.00
Materials for WPA Projects	1936-304	30,000.00	29,469.74	29,469.74	530.26
		\$1,664,631.68	\$218,139.15	\$1,589,689.67	\$74,942.01

## PER CAPITA

During the year the average number of patients has been, 2,387.173

Total cost of maintenance, \$1,064,843.75

Equal to a weekly per capita cost of (52 weeks to year), \$8.5782

Total receipts for the year, \$87,017.72

Equal to a weekly per capita of, \$.701

Total net cost of Maintenance for year, \$997,826.03

Net weekly per capita, \$.78772

Respectfully submitted,

ROSE J. SICILIANO

Treasurer.

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION PRESCRIBED BY  
THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

(Data correct at end of institution year, November 30, 1936)

Date of opening as a hospital for mental diseases, December 11, 1839.

Type of hospital: State

Hospital plant:

Value of hospital property:

Real estate, including buildings . . . . . \$4,866,655.80

Personal property . . . . . 401,043.19

Total

Total acreage of hospital property owned, 224.66 . . . . . \$5,267,698.99

Total acreage under cultivation during previous year, 110.63.

Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	1	—	1	—	—	—
Assistant Superintendent . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	7	8	15	—	—	—
Clinical assistants . . . . .	—	—	—	1	—	1
Total physicians . . . . .	9	8	17	1	—	1
Stewards . . . . .	1	—	1	—	—	—
Resident dentists . . . . .	1	—	1	—	—	—
Pharmacists . . . . .	1	—	1	—	—	—
Graduate nurses (inc. 40 gr. psychiat n.) . . . . .	1	74	75	—	—	—
Other nurses and attendants . . . . .	199	187	386	—	3	3
Occupational and industrial therapists . . . . .	4	12	16	—	1	1
Social workers . . . . .	—	5	5	—	—	—
All other officers and employees . . . . .	119	109	228	1¼	—	1¼
Total officers and employees . . . . .	335	395	730	2¼	4	6¼

Census of Patient Population at end of year (Classification by Diagnosis, Sept. 30, 1936):

	Actually in Hospital			Absent from Hospital but still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane . . . . .	959	1,351	2,310	120	162	282
Mental defectives . . . . .	2	6	8	1	—	1
Alcoholics . . . . .	1	—	1	—	—	—
All other cases . . . . .	4	7	11	—	1	1
Total . . . . .	966	1,364	2,330	121	163	284
OTHER RACES:						
Insane . . . . .	29	49	78	4	4	8
All other cases . . . . .	—	1	1	—	—	—
Total . . . . .	29	50	79	4	4	8
Grand Total . . . . .	995	1,414	2,409	125	167	292

	M.	F.	T.
Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .	70	124	194
Other patients employed in general work of hospital on date of report . . . . .	447	504	951
Average daily number of all patients actually in hospital during year . . . . .	972.72	1,384.71	2,357.43
Persons given advice or treatment in out-patient clinics during year . . . . .	130	91	221

TABLE 2. *Movement of Patient Population for the Year Ended September 30, 1936*  
(Data in all of the following tables are based on the Statistical Year, October 1, 1935, to September 30, 1936)

	TOTAL			REGULAR COURT COMMITMENT (INSANE)			OBSERVATION			TEMPORARY CARE		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1935 . . . . .	1,058	1,469	2,527	1,057	1,462	2,519	-	4	4	1	3	4
Admissions during year:												
First admissions . . . . .	398	358	756	300	306	606	34	12	46	64	40	104
Readmissions . . . . .	67	94	161	33	59	92	19	13	32	15	22	37
Total admissions . . . . .	465	452	917	333	365	698	53	25	78	79	62	141
Transfers from other mental hospitals . . . . .	21	31	52	21	31	52	-	-	-	-	-	-
Total received during year . . . . .	486	483	969	354	396	750	53	25	78	79	62	141
Total on books during year . . . . .	1,544	1,952	3,496	1,411	1,858	3,269	53	29	82	80	65	145
Discharged from books during year:												
As recovered . . . . .	40	35	75	31	27	58	4	2	6	5	6	11
As improved . . . . .	81	73	154	60	62	122	2	2	4	19	9	28
As unimproved . . . . .	45	51	96	18	17	35	2	2	4	25	32	57
As without psychosis . . . . .	58	35	93	3	2	5	38	17	55	17	16	33
Total discharged to community . . . . .	224	194	418	112	108	220	46	23	69	66	63	129
Transferred to other mental hospitals . . . . .	11	13	24	11	13	24	-	-	-	-	-	-
Died during year . . . . .	189	164	353	172	160	332	4	2	6	13	2	15
Total discharged, transferred and died during year . . . . .	424	371	795	295	281	576	50	25	75	79	65	144
Patients remaining on books of hospital at end of year:												
In hospital . . . . .	995	1,414	2,409	991	1,410	2,401	3	4	7	1	-	1
On parole or otherwise absent . . . . .	125	167	292	125	167	292	-	-	-	-	-	-
Total . . . . .	1,120	1,581	2,701	1,116	1,577	2,693	3	4	7	1	-	1

## SUPPLEMENTARY DATA

	Males	Females	Total
Average daily number of patients on books during year . . . . .	1,091.91	1,540.56	2,632.47
Actually in institution during year . . . . .	972.73	1,384.71	2,357.44
In family care . . . . .	-	14.35	14.35
On visit . . . . .	117.15	141.33	258.48
On escape . . . . .	-	.17	.20
Number of patients actually remaining in institution September 30, 1936:			
State . . . . .	919	1,229	2,148
Reimbursing . . . . .	76	185	261
Ex-service patients paid by Federal Government . . . . .	1	1	2
Number of patients in family care September 30, 1936 . . . . .	-	15	15
State . . . . .	-	15	15
Number of non-insane patients in hospital at end of institution year:			
Mentally defective . . . . .	2	6	8
Others . . . . .	5	8	13

TABLE 3. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States <sup>1</sup>	165	146	311	55	61	45	54	52	47
Austria	2	1	3	4	3	3	1	2	1
Canada <sup>2</sup>	37	37	74	46	38	36	32	26	23
China	1	1	2	—	1	—	1	1	1
Czecho-Slovakia	1	—	1	—	—	—	—	—	—
Denmark	—	1	1	—	—	—	1	1	1
England	5	11	16	6	6	4	14	15	9
Finland	—	—	—	—	1	—	—	—	—
France	—	—	—	—	—	—	1	1	—
Germany	5	—	5	11	11	9	8	8	7
Greece	3	—	3	3	2	2	—	—	—
Hungary	—	1	1	—	—	—	1	1	1
Ireland	31	64	95	90	86	82	95	94	91
Italy	20	11	31	29	29	29	18	18	18
Norway	2	1	3	2	3	2	1	1	1
Poland	2	4	6	2	2	2	4	4	4
Portugal	4	3	7	4	4	4	2	2	2
Russia	6	6	12	9	9	9	13	12	12
Scotland	2	2	4	3	5	3	1	2	1
Sweden	4	4	8	4	3	3	5	4	4
Turkey in Asia	2	—	2	2	2	2	—	—	—
Wales	—	—	—	—	—	—	1	1	1
West Indies <sup>3</sup>	2	5	7	1	1	1	2	3	2
Other Countries	4	4	8	6	6	6	6	6	6
Unknown	2	4	6	23	27	21	45	52	44
Total	300	306	606	300	300	263	306	306	276

<sup>1</sup>Persons born in Hawaii, Porto Rico, and the Virgin Islands should be recorded as born in the U. S.<sup>2</sup>Includes Newfoundland.<sup>3</sup>Except Cuba, Porto Rico and Virgin Islands.

TABLE 4. Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born

AGE AT ADMIS- SION Years	NATIVE BORN										FOREIGN BORN										Nativity Unknown																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	Aggregate			Total			PARENTAGE			Total			TIME IN UNITED STATES BEFORE ADMISSION			Unknown																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
15-19	12	10	22	2	1	3	4	9	7	16	1	2	3	1	1	2	2	1	6	5	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE 5. *Citizenship of First Admissions*

	Males	Females	Total
Citizens by birth . . . . .	165	146	311
Citizens by naturalization . . . . .	64	45	109
Aliens . . . . .	36	30	66
Citizenship unknown . . . . .	35	85	120
Total . . . . .	300	306	606

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	TOTAL			With syphilitic meningo-encephalitis			With other infectious diseases			Alcoholic psychoses			Due to drugs, ect.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	11	23	34	3	3	6	—	—	—	1	—	1	—	—	—
Armenian . . . . .	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—
Chinese . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
English . . . . .	3	13	16	1	—	1	—	—	—	2	2	—	—	—	—
German . . . . .	12	8	20	—	—	—	—	—	—	—	—	—	—	—	—
Greek . . . . .	3	—	3	1	—	1	—	—	—	—	—	—	—	—	—
Hebrew . . . . .	12	17	29	—	—	—	—	—	—	1	—	1	—	—	—
Irish . . . . .	86	108	194	2	1	3	—	—	—	9	5	14	1	1	2
Italian <sup>1</sup> . . . . .	31	19	50	2	—	2	—	—	—	3	—	3	—	—	—
Lithuanian . . . . .	2	5	7	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese . . . . .	4	4	8	—	—	—	—	—	—	1	—	1	—	—	—
Roumanian . . . . .	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
Scandinavian <sup>2</sup> . . . . .	7	5	12	1	—	1	—	—	—	—	—	—	—	—	—
Scotch . . . . .	3	4	7	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup> . . . . .	3	5	8	—	1	1	—	—	—	—	—	—	—	—	—
Syrian . . . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Turkish . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Welsh . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Mixed . . . . .	100	76	176	7	3	10	—	2	2	14	3	17	—	1	1
Race unknown . . . . .	15	17	32	—	1	1	—	—	—	—	—	—	—	—	—
Total . . . . .	300	306	606	17	9	26	—	2	2	30	10	40	1	2	3

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Traumatic psychoses			With cerebral arteriosclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Senile psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	—	—	—	5	8	13	—	2	2	—	—	—	—	3	3
Armenian . . . . .	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Chinese . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English . . . . .	—	—	—	2	4	6	—	—	—	—	—	—	—	—	—
German . . . . .	—	—	—	6	1	7	—	—	—	1	1	—	—	—	—
Greek . . . . .	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—
Hebrew . . . . .	—	—	—	2	2	4	—	—	—	—	—	—	—	1	1
Irish . . . . .	2	—	2	43	53	96	—	—	—	—	—	—	3	8	11
Italian <sup>1</sup> . . . . .	—	—	—	8	5	13	—	—	—	—	—	—	2	1	3
Lithuanian . . . . .	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Portuguese . . . . .	1	—	1	2	2	4	—	—	—	—	—	—	—	—	—
Roumanian . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup> . . . . .	—	—	—	3	4	7	—	—	—	1	—	1	—	—	—
Scotch . . . . .	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup> . . . . .	—	—	—	—	—	—	—	—	—	1	—	1	—	1	1
Syrian . . . . .	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Turkish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Welsh . . . . .	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Mixed . . . . .	—	—	—	39	24	63	—	—	—	1	1	1	4	8	12
Race unknown . . . . .	—	—	—	10	10	20	1	—	1	—	—	—	1	2	3
Total . . . . .	3	—	3	123	115	238	1	2	3	4	3	7	10	24	34

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Involuntal psychoses			Due to other metabolic diseases, etc.			Due to new growth			With organic changes of nervous system			Psycho-neuroses			Manic-depressive psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	4
Armenian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	5
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	5	8
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	1	—	1	—	—	—	1	1	2	1	1	2	5	6	11
Irish	—	2	2	—	3	3	2	—	2	—	—	—	2	1	3	12	18	30
Italian <sup>1</sup>	—	—	—	—	2	2	—	—	—	1	—	1	—	1	1	7	6	13
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Roumanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1
Scotch	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	1	1	2
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	2	2
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Welsh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	—	2	2	1	1	2	1	—	1	1	1	2	2	3	5	15	17	32
Race unknown	—	—	—	1	1	2	—	—	—	—	1	1	—	—	—	1	1	2
Total	—	4	4	5	7	12	3	—	3	4	3	7	5	6	11	50	65	115

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Dementia paraecox			Paranoia and paranoid conditions			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	1	—	1	—	3	3	—	1	1	—	—	—	—	—	—	—	—	—
Armenian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chinese	—	1	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
English	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	1	1	1	—	1	—	—	—	—	—	—	2	—	2
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	3	3	—	1	1	1	1	2	—	1	1	—	—	—	—	—	—
Irish	3	1	4	—	9	9	—	2	2	6	4	10	—	—	—	1	—	1
Italian <sup>1</sup>	3	—	3	1	—	1	—	—	—	3	3	6	—	1	1	—	—	1
Lithuanian	—	1	1	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	1	1	—	—	—	—	—	—	—	1	1	—	—	—
Roumanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	1	1	—	—	—	1	—	1	—	—	—	—	—	—
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Welsh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	6	4	10	6	3	9	3	2	5	1	1	2	—	—	—	—	—	—
Race unknown	—	—	—	1	—	1	—	—	—	—	—	—	—	1	1	—	—	—
Total	13	11	24	10	25	35	6	6	12	11	9	20	—	3	3	4	—	4

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.



TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			15-19 years			20-24 years			25-29 years			30-34 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	17	9	26	-	-	-	-	-	-	-	1	1	2	1	3
With other infectious diseases	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	30	10	40	-	-	-	-	-	-	3	-	3	3	-	3
Due to drugs, etc.	1	2	3	-	-	-	-	1	1	-	-	-	-	-	-
Traumatic psychoses	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	123	115	238	-	-	-	-	-	-	-	-	-	-	-	-
With other disturbances of circulation	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	4	3	7	1	-	1	-	-	-	-	1	1	-	-	-
Senile psychoses	10	24	34	-	-	-	-	-	-	-	-	-	-	-	-
Involuntary psychoses	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	5	7	12	1	-	1	-	1	1	-	1	1	-	2	2
Due to new growth	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	4	3	7	1	-	1	-	-	-	-	1	1	-	-	-
Psychoneuroses	5	6	11	-	1	1	1	-	1	2	1	3	1	2	3
Manic-depressive psychoses	50	65	115	4	6	10	7	6	13	5	11	16	9	6	15
Dementia praecox	13	11	24	1	-	1	6	-	6	2	2	4	2	4	6
Paranoia and paranoid conditions	10	25	35	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	6	6	12	1	-	1	-	1	1	1	1	2	1	-	1
With mental deficiency	11	9	20	2	3	5	-	-	-	3	3	6	1	1	2
Undiagnosed psychoses	-	3	3	-	-	-	-	-	-	-	1	1	-	-	-
Without psychoses	4	-	4	1	-	1	-	-	-	-	-	-	-	-	-
Total	300	306	606	12	10	22	14	9	23	16	23	39	19	16	35

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued*

PSYCHOSES	35-39 years			40-44 years			45-49 years			50-54 years			55-59 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	2	-	2	1	2	3	1	2	3	6	1	7	1	2	3
With other infectious diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Alcoholic psychoses	2	1	3	5	-	5	6	2	8	4	2	6	3	3	6
Due to drugs, etc.	-	-	-	-	-	-	1	-	1	-	1	1	-	-	-
Traumatic psychoses	-	-	-	1	-	1	1	-	1	1	-	1	-	-	-
With cerebral arteriosclerosis	-	-	-	-	-	-	-	-	-	1	4	5	13	7	20
With other disturbances of circulation	-	-	-	-	-	-	1	2	3	-	-	-	-	-	-
With convulsive disorders (epil.)	1	-	1	1	1	2	-	-	-	-	-	-	-	-	-
Senile psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Involuntary psychoses	-	-	-	-	2	2	-	-	-	-	1	1	-	1	1
Due to other metabolic diseases, etc.	-	-	-	-	-	-	-	3	3	1	-	1	1	-	1
Due to new growth	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
With organic changes of nervous system	-	-	-	-	-	-	1	-	1	1	-	1	1	1	2
Psychoneuroses	-	1	1	-	-	-	1	-	1	-	1	1	-	-	-
Manic-depressive psychoses	5	8	13	6	7	13	4	10	14	1	6	7	5	3	8
Dementia praecox	1	2	3	1	2	3	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	2	-	2	4	5	9	-	7	7	1	5	6	-	2	2
With psychopathic personality	-	1	1	-	1	1	2	2	4	-	-	-	-	-	-
With mental deficiency	2	-	2	1	1	2	-	1	1	1	-	1	1	-	1
Undiagnosed psychoses	-	-	-	-	1	1	-	-	-	-	-	-	-	1	1
Without psychoses	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
Total	16	13	29	21	22	43	18	29	47	17	21	38	26	22	48

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	60-64 years			65-69 years			70-74 years			75-79 years			80-84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . .	1	-	1	-	-	-	3	-	3	-	-	-	-	-	-	-	-	-
With other infectious diseases . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses . . .	3	1	4	-	-	-	1	-	1	-	1	1	-	-	-	-	-	-
Due to drugs, etc. . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis . . .	17	14	31	26	18	44	31	24	55	22	27	49	11	16	27	2	5	7
With other disturbances of circulation . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . .	1	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses . . .	1	3	4	2	3	5	2	11	13	4	3	7	1	2	3	-	1	1
Involutional psychoses . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc. . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Due to new growth . . .	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-
With organic changes of nervous system . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses . . .	1	-	1	2	1	3	1	1	2	-	-	-	-	-	-	-	-	-
Dementia praecox . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions . . .	1	3	4	1	2	3	1	1	2	-	-	-	-	-	-	-	-	-
With psychopathic personality . . .	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Without psychoses . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . .	27	24	51	33	25	58	41	37	78	26	31	57	12	18	30	2	6	8

TABLE 8. *Degree of Education of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Illiterate			Reads Only			Reads and Writes			Common School			High School			College			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	17	9	26	1	1	2	-	-	-	1	-	1	13	6	19	1	-	1	-	-	-	1	2	3
With other infectious diseases . . . . .	30	2	32	2	-	2	-	-	-	1	-	1	21	2	23	4	-	4	-	1	2	-	-	1
Alcoholic psychoses . . . . .	1	10	11	-	-	-	-	-	-	-	-	-	1	9	30	2	4	1	1	1	2	-	-	-
Due to drugs, etc. . . . .	3	2	5	1	-	1	-	-	-	-	-	-	1	1	1	1	1	1	1	1	2	-	-	-
Traumatic psychoses . . . . .	123	115	238	10	13	23	1	-	1	12	6	18	55	47	102	12	5	17	3	2	5	30	42	72
With cerebral arteriosclerosis . . . . .	1	2	3	-	-	-	-	-	-	1	-	1	-	1	1	-	-	-	-	-	-	1	1	2
With other disturbances of circulation . . . . .	4	3	7	1	4	5	-	-	-	1	3	4	2	3	11	-	-	-	-	-	-	1	1	2
With convulsive disorders (epilepsy) . . . . .	10	24	34	1	4	5	-	-	-	1	-	1	2	9	11	-	-	-	-	1	1	6	7	13
Senile psychoses . . . . .	4	4	8	-	-	-	-	-	-	2	-	2	1	4	5	-	-	-	-	1	1	1	1	2
Involutional psychoses . . . . .	5	7	12	-	1	1	-	-	-	-	-	-	3	-	3	-	-	-	-	-	-	1	1	-
Due to other metabolic diseases, etc. . . . .	3	3	6	1	-	1	-	-	-	1	-	1	1	2	3	-	-	-	-	-	-	1	1	2
Due to new growth . . . . .	4	3	7	1	-	1	-	-	-	1	1	1	1	2	3	-	-	-	-	-	-	1	1	2
With organic changes of nervous system . . . . .	5	6	11	1	-	1	-	-	-	1	-	1	3	2	5	4	4	8	-	-	-	1	1	2
Psychoneuroses . . . . .	50	65	115	3	-	3	-	-	-	2	2	2	32	35	67	17	25	38	2	2	4	-	-	1
Manic-depressive psychoses . . . . .	13	11	24	-	-	-	-	-	-	-	-	-	6	17	23	8	7	14	2	2	2	-	-	1
Dementia praecox . . . . .	10	25	35	1	-	1	-	-	1	3	1	3	5	17	22	1	1	2	-	1	1	1	2	3
Paranoia and paranoid conditions . . . . .	6	6	12	-	-	-	-	-	-	-	-	-	4	2	6	2	2	4	-	1	1	1	1	2
With psychopathic personality . . . . .	11	9	20	-	-	-	-	-	-	-	-	-	10	7	17	-	-	-	-	-	-	1	1	2
With mental deficiency . . . . .	3	3	6	-	-	-	-	-	-	-	-	-	2	2	4	-	-	-	-	-	-	1	1	2
Undiagnosed psychoses . . . . .	4	-	4	-	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-	-	-	-	-	1
Without psychoses . . . . .	300	306	606	21	23	44	1	1	2	22	13	35	160	152	312	44	47	91	8	10	18	44	60	104
Total . . . . .	300	306	606	21	23	44	1	1	2	22	13	35	160	152	312	44	47	91	8	10	18	44	60	104

TABLE 9. *Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			0-2,499		10,000-24,999		25,000-49,999		50,000-99,999		500,000+			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	17	9	26	-	-	-	-	-	-	-	-	-	17	9	26
With other infectious diseases . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	2	2
Alcoholic psychoses. . . . .	30	10	40	-	-	-	-	-	-	-	-	-	30	10	40
Due to drugs, etc. . . . .	1	2	3	-	-	-	-	-	-	-	-	-	1	2	3
Traumatic psychoses . . . . .	3	-	3	-	-	-	-	-	-	-	-	-	3	-	3
With cerebral arteriosclerosis . . . . .	123	115	238	-	-	-	-	-	-	-	-	-	121	115	236
With other disturbances of circulation . . . . .	1	2	3	-	-	-	1	-	-	1	-	1	1	2	3
With convulsive disorders (epilepsy) . . . . .	4	3	7	-	-	-	-	-	-	-	-	-	4	3	7
Senile psychoses . . . . .	10	24	34	-	-	-	-	-	-	-	-	-	10	24	34
Involutional psychoses . . . . .	-	4	4	-	-	-	-	-	-	-	-	-	-	4	4
Due to other metabolic diseases, etc. . . . .	5	7	12	-	-	-	1	-	-	-	-	-	4	6	10
Due to new growth . . . . .	3	3	6	-	-	-	1	1	-	-	-	-	3	3	6
With organic changes of nervous system . . . . .	4	3	7	-	-	-	-	-	-	-	-	-	4	3	7
Psychoneuroses . . . . .	5	6	11	-	-	-	-	-	-	-	-	-	5	6	11
Manic-depressive psychoses . . . . .	50	65	115	-	-	-	-	-	-	1	-	1	49	64	113
Lementia praecox . . . . .	13	11	24	-	-	-	-	-	-	-	-	-	13	11	24
Paranoia and paranoid conditions . . . . .	10	25	35	-	-	-	-	-	-	-	-	-	10	25	35
With psychopathic personality . . . . .	6	6	12	-	-	-	-	-	-	-	-	-	6	6	12
With mental deficiency . . . . .	11	9	20	-	-	-	-	-	-	-	-	-	11	9	20
Undiagnosed psychoses . . . . .	-	3	3	-	-	-	-	-	-	-	-	-	-	3	3
Without psychoses . . . . .	4	-	4	-	-	-	-	-	-	-	-	-	4	-	4
Total . . . . .	300	306	606	-	1	1	2	-	2	1	-	1	1	1	2
													296	304	600

TABLE 10. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Dependent			Marginal			Comfort- able	Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M. F. T.	M.	F.	T.
With syphilitic meningo- encephalitis	17	9	26	7	2	9	9	5	14	- - -	1	2	3
With other infectious diseases	-	2	2	-	-	-	-	2	2	- - -	-	-	-
Alcoholic psychoses	30	10	40	2	2	4	24	7	31	- - -	4	1	5
Due to drugs, etc.	1	2	3	-	1	1	1	-	1	- - -	-	1	1
Traumatic psychoses	3	-	3	1	-	1	2	-	2	- - -	-	-	-
With cerebral arteriosclerosis	123	115	238	42	24	66	64	62	126	1 - 1	16	29	45
With other disturbances of circulation	1	2	3	-	-	-	1	1	2	- - -	-	1	1
With convulsive disorders (epilepsy)	4	3	7	1	1	2	3	1	4	- - -	-	1	1
Senile psychoses	10	24	34	4	7	11	3	10	13	- - -	3	7	10
Involuntal psychoses	-	4	4	-	-	-	-	4	4	- - -	-	-	-
Due to other metabolic dis- eases, etc.	5	7	12	1	-	1	3	7	10	1 - 1	-	-	-
Due to new growth	3	-	3	2	-	2	1	-	1	- - -	-	-	-
With organic changes of nervous system	4	3	7	3	1	4	1	2	3	- - -	-	-	-
Psychoneuroses	5	6	11	1	1	2	3	5	8	- - -	1	-	1
Manic-depressive psychoses	50	65	115	5	8	13	44	53	97	- - -	1	4	5
Dementia praecox	13	11	24	5	4	9	6	7	13	- - -	2	-	2
Paranoia and paranoid con- ditions	10	25	35	-	5	5	9	18	27	- - -	1	2	3
With psychopathic person- ality	6	6	12	1	-	1	5	5	10	- - -	-	1	1
With mental deficiency	11	9	20	2	2	4	7	7	14	- - -	2	-	2
Undiagnosed psychoses	-	3	3	-	-	-	-	2	2	- - -	-	1	1
Without psychoses	4	-	4	2	-	2	2	-	2	- - -	-	-	-
Total	300	306	606	79	58	137	188	198	386	2 - 2	31	50	81

TABLE 11. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Abstinent			Temperate			Intemperate			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo- encephalitis	17	9	26	1	-	1	5	3	8	8	3	11	3	3	6
With other infectious diseases	-	2	2	-	2	2	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	30	10	40	-	-	-	-	-	-	30	10	40	-	-	-
Due to drugs, etc.	1	2	3	-	1	1	-	1	1	1	-	1	-	-	-
Traumatic psychoses	3	-	3	-	-	-	1	-	1	2	-	2	-	-	-
With cerebral arteriosclerosis	123	115	238	24	61	85	40	13	53	34	3	37	25	38	63
With other disturbances of circulation	1	2	3	-	1	1	1	-	1	-	-	-	-	1	1
With convulsive disorders (epilepsy)	4	3	7	2	1	3	1	2	3	-	-	-	-	1	1
Senile psychoses	10	24	34	1	10	11	5	2	7	1	2	3	3	10	13
Involuntal psychoses	-	4	4	-	2	2	-	1	1	-	1	1	-	-	-
Due to other metabolic dis- eases, etc.	5	7	12	2	3	5	1	3	4	1	-	1	1	1	2
Due to new growth	3	-	3	1	-	1	2	-	2	-	-	-	-	-	-
With organic changes of nervous system	4	3	7	3	2	5	1	-	1	-	-	-	-	1	1
Psychoneuroses	5	6	11	2	3	5	3	1	4	-	2	2	-	-	-
Manic-depressive psychoses	50	65	115	8	33	41	16	15	31	24	10	34	2	7	9
Dementia praecox	13	11	24	8	10	18	2	1	3	2	-	2	1	-	1
Paranoia and paranoid con- ditions	10	25	35	2	16	18	1	6	7	6	1	7	1	2	3
With psychopathic person- ality	6	6	12	2	2	4	1	3	4	3	1	4	-	-	-
With mental deficiency	11	9	20	2	6	8	3	1	4	5	1	6	1	1	2
Undiagnosed psychoses	-	3	3	-	1	1	-	-	-	-	-	-	-	2	2
Without psychoses	4	-	4	2	-	2	1	-	1	1	-	1	-	-	-
Total	300	306	606	60	154	214	84	52	136	118	34	152	38	66	104

TABLE 12. *Mental Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Single			Married			Widowed			Divorced			Separated			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	17	9	26	3	-	3	9	5	14	2	3	5	-	1	1	3	-	-	-	-	-
With other infectious diseases . . . . .	-	2	2	-	1	1	-	-	-	-	1	1	-	-	2	-	-	-	-	-	-
Alcoholic psychoses . . . . .	30	10	40	7	2	9	14	4	18	4	2	6	1	1	2	4	1	5	-	-	-
Due to drugs, etc. . . . .	1	12	13	1	1	2	2	-	2	-	-	-	-	1	1	-	-	-	-	-	-
Traumatic psychoses . . . . .	123	115	238	34	26	60	46	16	62	34	68	102	4	3	7	4	1	5	1	1	2
With cerebral arteriosclerosis . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
With other disturbances of circulation . . . . .	4	3	7	3	1	4	4	2	6	2	1	2	-	1	1	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . . . .	10	24	34	4	5	9	4	2	6	2	17	19	-	-	-	-	-	-	-	-	-
Semile psychoses . . . . .	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Involutional psychoses . . . . .	5	7	12	1	1	2	3	5	8	1	1	1	-	-	-	1	-	-	-	-	-
Due to other metabolic diseases, etc. . . . .	3	3	6	2	1	3	2	1	3	-	1	1	-	-	-	-	-	-	-	-	-
Due to new growth . . . . .	4	3	7	2	1	3	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system . . . . .	5	6	11	28	2	30	17	27	44	3	9	12	1	1	2	1	-	-	-	-	-
Psychoneuroses . . . . .	50	65	115	12	8	20	1	4	5	-	-	-	-	1	1	-	-	-	-	-	-
Manic-depressive psychoses . . . . .	13	11	24	5	7	12	4	12	16	-	5	5	-	1	1	-	1	1	-	-	-
Dementia praecox . . . . .	10	25	35	3	4	7	3	1	4	-	1	1	-	-	-	-	1	1	-	-	-
Paranoia and paranoid conditions . . . . .	6	6	12	8	6	14	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality . . . . .	11	9	20	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency . . . . .	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses . . . . .	4	-	4	3	-	3	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Without psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	300	306	606	118	97	215	113	82	195	46	112	158	7	10	17	15	4	19	1	1	2



TABLE 13. *Mental Disorders of All Admissions, All Discharges, All Deaths, 1936, All Cases in Residence and All Cases Out on September 30, 1936, by Status of Admission and Sex — Concluded*

MENTAL DISORDERS	ALL ADMISSIONS				ALL DISCHARGES				ALL DEATHS				RESIDENT POPULATION				PATIENTS OUT ON VISIT, ETC.			
	First Admissions		Readmissions		First Admissions		Readmissions		First Admissions		Readmissions		First Admissions		Readmissions		First Admissions		Readmissions	
	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.
<i>Psychoses Due to Disturbances of Metabolism, Growth, Nutrition or Endocrine Function:</i>																				
Senile psychoses:																				
Simple deterioration . . .	4	14	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Presbyofrenic type . . .	2	4	6	-	-	2	2	-	4	4	-	-	1	2	3	1	3	4	-	-
Delirious and confused types . . .	1	2	3	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Depressed and agitated types . . .	3	2	5	-	-	1	1	-	1	1	-	-	-	3	3	-	-	-	-	-
Paranoid types . . .	1	5	6	-	-	1	1	2	1	1	-	-	-	1	1	-	2	2	2	2
Involuntary psychoses:																				
Melancholia . . .	-	4	4	1	-	2	1	3	-	-	-	-	-	5	16	21	-	-	-	-
Paranoid types . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-
Other types . . .	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With diseases of the endocrine glands . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-
Exhaustion delirium . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
Alzheimer's disease . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
With other somatic diseases . . .	4	8	12	-	2	2	1	1	-	-	-	-	-	-	5	5	1	3	4	2
<i>Psychoses Due to New Growth:</i>																				
With intracranial neoplasms . . .	3	-	3	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With other neoplasms . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Psychoses Due to Unknown or Hereditary Causes, but Associated with Organic Changes:</i>																				
With multiple sclerosis . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	-	-	-	-
With paralysis agitans . . .	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	1	-	-	-	-
With Huntington's chorea . . .	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
With other brain or nervous diseases . . .	4	3	7	-	-	-	-	-	1	1	2	1	-	1	1	2	2	1	3	1
<i>Disorders of Psychogenic Origin or Without Clearly Defined Tangible Cause or Structural Change:</i>																				
Psychoneuroses:																				
Anxiety hysteria . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-
Conversion hysteria . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hyperkinetic type . . .	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amnesic type . . .	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed hysterical psychoneurosis . . .	-	3	3	-	1	1	-	-	-	-	-	-	-	-	2	2	1	2	3	-



[illegible]

**NOTE: — Admissions and discharges do not include transfers.**

TABLE 13A. *Principal Psychoses of Court Readmissions, by Sex*

PSYCHOSES	Males	Females	Total
With syphilitic meningo-encephalitis . . . . .	2	3	5
Alcoholic psychoses . . . . .	3	1	4
Traumatic psychoses . . . . .	1	—	1
With cerebral arteriosclerosis . . . . .	4	6	10
With convulsive disorders (epilepsy) . . . . .	2	1	3
Senile psychoses . . . . .	1	2	3
Involuntional psychoses . . . . .	1	—	1
Due to other metabolic diseases, etc. . . . .	—	2	2
Psychoneuroses . . . . .	1	1	2
Manic-depressive psychoses . . . . .	15	29	44
Dementia praecox . . . . .	2	3	5
Paranoia and paranoid conditions . . . . .	—	3	3
With psychopathic personality . . . . .	1	1	2
With mental deficiency . . . . .	—	6	6
Without psychoses . . . . .	—	1	1
Total . . . . .	33	59	92

TABLE 14. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	TOTAL			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	7	3	10	—	—	—	3	1	4	4	2	6
Alcoholic psychoses . . . . .	15	1	16	2	—	2	11	1	12	2	—	2
Due to drugs, etc. . . . .	—	2	2	—	2	2	—	—	—	—	—	—
Traumatic psychoses . . . . .	1	—	1	—	—	—	1	—	1	—	—	—
With cerebral arteriosclerosis . . . . .	15	3	18	—	—	—	9	2	11	6	1	7
With convulsive disorders (epilepsy) . . . . .	5	7	12	1	—	1	3	4	7	1	3	4
Senile psychoses . . . . .	1	4	5	—	—	—	1	2	3	—	2	2
Involuntional psychoses . . . . .	2	2	4	—	—	—	1	2	3	1	—	1
Due to other metabolic diseases, etc. . . . .	—	1	1	—	—	—	—	—	—	—	1	1
With organic changes of nervous system . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
Psychoneuroses . . . . .	1	5	6	—	1	1	1	4	5	—	—	—
Manic-depressive psychoses . . . . .	52	53	105	25	22	47	25	30	55	2	1	3
Dementia praecox . . . . .	4	6	10	—	—	—	3	4	7	1	2	3
Paranoia and paranoid conditions . . . . .	1	11	12	1	—	1	—	8	—	—	3	3
With psychopathic personality . . . . .	3	1	4	2	1	3	1	—	1	—	—	—
With mental deficiency . . . . .	2	6	8	—	1	1	1	3	4	1	2	3
Without psychoses . . . . .	3	2	5	—	—	—	—	—	—	—	—	—
Total . . . . .	112	108	220	31	27	58	60	62	122	18	17	35

TABLE 15. *Hospital Residence during This Admission of Court First Admissions Discharged during 1936*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	4	2	6	.43	.41	.42
Alcoholic psychoses . . . . .	14	—	14	.69	—	.69
Due to drugs, etc. . . . .	—	2	2	—	1.27	1.27
Traumatic psychoses . . . . .	1	—	1	.20	—	.20
With cerebral arteriosclerosis . . . . .	15	3	18	.33	.14	.30
With convulsive disorders (epilepsy) . . . . .	5	5	10	.64	1.07	.86
Senile psychoses . . . . .	1	4	5	.46	1.07	.95
Involuntional psychoses . . . . .	2	2	4	1.22	.16	.69
Due to other metabolic diseases, etc. . . . .	—	1	1	—	.37	.37
With organic changes of nervous system . . . . .	—	1	1	—	.29	.29
Psychoneuroses . . . . .	1	3	4	1.50	3.02	2.64
Manic-depressive psychoses . . . . .	36	40	76	1.15	.86	.99
Dementia praecox . . . . .	2	2	4	1.50	3.93	2.71
Paranoia and paranoid conditions . . . . .	1	8	9	.46	2.01	1.83
With psychopathic personality . . . . .	3	1	4	.26	.46	.31
With mental deficiency . . . . .	2	5	7	.16	2.71	1.98
Without psychoses . . . . .	3	1	4	.06	.12	.08
Total . . . . .	90	80	170	.78	1.20	.98

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Mental Disorders

CAUSES OF DEATH	TOTAL			With syphilitic meningo-encephalitis			With other forms of syphilis			With other infectious diseases			Alcoholic psychoses			Traumatic psychoses			With cerebral arterio-sclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
<i>Infectious and Parasitic Diseases:</i>																												
Influenza	-	1		-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tuberculosis of the respiratory system	6	6	12	-	-		-	-	1	1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Purulent infection, septicaemia (non-puer- peral)	1	1	2	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Cancer and Other Tumors:</i>																												
Cancer and other malignant tumors	5	4	9	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tumor (non-cancerous)	-	1	1	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Diseases of the Blood and Blood-Making Organs</i>																												
Pernicious anemia	-	1	1	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other diseases of the blood and blood- making organs	-	1	1	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Diseases of the Nervous System and Organs of Special Sense:</i>																												
Cerebral hemorrhage	1	1	2	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cerebral embolism and thrombosis	-	1	1	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
General paralysis of the insane	4	3	7	-	-	4	3	7	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Diseases of the Circulatory System:</i>																												
Chronic endocarditis (valvular disease)	1	1	2	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Diseases of the myocardium	73	44	117	-	-	6	1	7	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other diseases of the heart.	3	3	6	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arteriosclerosis	15	59	74	-	-	1	1		-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other diseases	-	1	1	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Diseases of the Respiratory System:</i>																												
Bronchopneumonia (including capillary bronchitis).	49	24	73	-	-	5	-	5	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lobar pneumonia.	4	1	5	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pleurisy	4	1	5	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other diseases (tuberculosis excepted)	2	1	3	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Diseases of the Digestive System:</i>																												
Diarrhea and enteritis.	-	1	1	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Appendicitis	-	1	1	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hernia, intestinal obstruction	-	1	1	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cirrhosis of the liver	-	1	1	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Liliary calculi and other diseases of the gall bladder and biliary passages.	1	-	1	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Diseases of the Genito-Urinary System:</i>																												
Dysentery (acute, chronic and unspecified)	2	1	3	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Diseases of the bladder (tumors excepted)	1	2	3	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Vitæ and Accidental Deaths:</i>																												
Suicide	1	1	2	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other external causes	1	-	1	-	-		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Ill-defined Causes of Death:</i>																												
Total.	172	160	332	15	5	20	1	-	1	-	1	-	1	-	1	1	10	40	2	-	2	92	85	177	5	1	2	3

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Mental Disorders — Concluded

CAUSES OF DEATH	Senile psychoses		Involutional psychoses		Due to other metabolic diseases, etc.		Due to new growth		With organic changes of nervous system		Manic-depressive psychoses		Dementia praecox		Paranoia and paranoid conditions		With psychopathic personality		With mental deficiency	
	M.	F.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Infectious and Parasitic Diseases:</i>																				
Influenza	-	-	-	-	-	-	-	-	-	-	-	1	4	-	-	-	-	-	-	-
Tuberculosis of the respiratory system.	-	-	-	1	1	-	-	-	-	-	2	3	5	3	-	-	-	-	-	-
Purulent infection, septicaemia (non-puerperal)	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-
<i>Cancer and Other Tumors:</i>																				
Cancer and other malignant tumors	-	1	1	-	1	-	-	1	-	-	1	-	1	2	3	1	-	-	-	-
Tumor (non-cancerous)	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Blood and Blood-Making Organs:</i>																				
Pernicious anemia	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases of the blood and blood-making organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Nervous System and Organs of Special System:</i>																				
Cerebral hemorrhage	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-
Cerebral embolism and thrombosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General paralysis of the insane.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Circulatory System:</i>																				
Chronic endocarditis (valvular disease)	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diseases of the myocardium.	4	10	14	-	-	1	1	2	1	1	2	4	6	1	4	5	3	2	5	-
Other diseases of the heart.	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Arteriosclerosis	1	6	7	-	1	-	1	-	-	-	1	3	4	-	3	3	-	-	-	-
Other diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Respiratory System:</i>																				
Bronchopneumonia (including capillary bronchitis)	5	5	10	-	-	-	-	1	1	2	4	3	7	-	2	2	1	-	1	1
Lobar pneumonia	-	-	-	-	-	-	-	-	-	-	3	1	3	1	-	1	-	-	-	-
Leureisy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other diseases (tuberculosis excepted)	-	1	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-
<i>Diseases of the Digestive System:</i>																				
Diarrhea and enteritis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Appendicitis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hernia, intestinal obstruction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cirrhosis of the liver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-



TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses

[illegible]

TABLE 17. *Age of Patients at Time of Death Classified with Reference to Principal Psychoses — Concluded*

	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85 years and over
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.
With syphilitic meningo-encephalitis . . . . .	4 -	2 2 4	1 -	- -	2 1 3	1 -	-	-
With other forms of syphilis . . . . .	- -	- -	- 1 -	- -	1 1 -	- -	-	-
With other infectious diseases . . . . .	- -	- -	- 1 -	- -	- -	- -	-	-
Alcoholic psychoses . . . . .	1 -	3 -	- -	1 -	1 -	2 -	-	-
Traumatic psychoses . . . . .	- -	- -	1 -	- -	- -	- -	-	-
With cerebral arteriosclerosis . . . . .	1 2 3	5 9 14	10 7 17	18 12 30	23 15 38	22 23 45	11 14 25	2 3 5
With other disturbances of circulation . . . . .	- -	- -	- -	- -	- -	- -	- -	- -
With convulsive disorders (epilepsy) . . . . .	- -	- -	1 -	- -	- -	- -	- -	- -
Senile psychoses . . . . .	- -	- -	- -	- -	- -	- -	- -	- -
Involuntional psychoses . . . . .	1 -	3 3	1 1	1 -	1 1	4 3 7	1 5 6	3 3
Due to other metabolic diseases, etc. . . . .	- -	- -	- -	- -	- -	- -	- -	- -
Due to new growth . . . . .	- -	1 1	- -	- -	2 -	- -	- -	- -
With organic changes of nervous system . . . . .	- -	1 1 2	- 1 1	- -	- -	- -	- -	- -
Manic-depressive psychoses . . . . .	2 2 4	2 4 6	3 2 5	3 1 5	2 2 4	2 3 5	- -	- -
Dementia praecox . . . . .	2 -	1 1	2 3	2 2	2 2	1 1	- -	- -
Furor and paranoid conditions . . . . .	- -	- -	- 1 1	- -	- -	2 -	- -	- -
Paranoia and paranoid conditions . . . . .	- -	- -	- -	1 1	- -	- -	- -	- -
With psychopathic personality . . . . .	- -	- -	- -	- -	- -	- -	- -	- -
With mental deficiency . . . . .	- -	- -	- 1 1	- -	- -	- -	- -	- -
Total . . . . .	11 4 15	16 22 38	19 16 35	28 22 50	33 29 62	31 28 51	12 19 31	2 6 8

TABLE 18.—Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses

PSYCHOSES	Total			Less than 1 month		1-3 months		4-7 months		8-12 months		1-2 years		3-4 years	
	Total			M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	15	5	20	1	—	1	3	2	5	2	—	—	1	2	—
With other forms of syphilis	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
With other infectious diseases	—	1	1	—	2	—	—	1	1	—	—	—	—	—	—
Alcoholic psychoses	10	—	10	—	—	—	—	—	—	—	—	—	—	—	—
Traumatic psychoses	2	—	2	1	—	1	—	—	—	—	—	—	—	—	—
With cerebral arteriosclerosis	92	85	177	45	24	69	30	22	52	7	8	10	14	24	—
With other disturbances of circulation	2	3	5	1	1	2	—	1	1	—	—	—	1	1	—
With convulsive disorders (epilepsy)	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—
Senile psychoses	10	24	34	5	2	7	3	3	6	1	2	1	5	6	—
Involutional psychoses	1	4	5	—	—	—	—	—	—	—	—	—	—	—	—
Due to other metabolic diseases, etc.	3	2	5	3	1	4	—	1	1	—	—	—	—	—	—
Due to new growth	3	2	5	3	2	—	—	—	—	—	—	—	—	—	—
With organic changes of nervous system	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—
Manic-depressive psychoses	18	16	34	2	3	5	2	1	3	2	1	3	6	1	7
Dementia praecox	6	11	17	—	—	—	—	—	—	—	—	—	—	—	—
Paranoia and paranoid conditions	5	3	8	—	—	—	—	—	—	—	—	—	—	—	—
With psychopathic personality	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
With mental deficiency	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
Total	172	160	332	62	31	93	39	32	71	6	10	16	21	24	45



TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses — Concluded*

PSYCHOSES	5-6 years		7-8 years		9-10 years		11-12 years		13-14 years		15-19 years		20 years and over	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
With syphilitic meningo-encephalitis	2	1	—	—	—	—	—	—	—	1	—	—	—	—
With other forms of syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With other infectious diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alcoholic psychoses	2	—	—	—	1	—	—	—	1	—	1	—	1	—
Traumatic psychoses	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With cerebral arteriosclerosis	—	1	1	1	1	1	—	—	—	—	1	—	—	—
With other disturbances of circulation	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With convulsive disorders (epilepsy)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Senile psychoses	—	2	—	2	—	—	—	—	—	1	—	—	—	1
Involitional psychoses	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Due to other metabolic diseases, etc.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Due to new growth	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With organic changes of nervous system	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Manic-depressive psychoses	1	—	2	3	5	—	—	1	1	—	—	—	1	1
Dementia praecox	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Paranoia and paranoid conditions	1	1	2	1	1	—	1	—	1	—	1	—	4	7
With psychopathic personality	—	—	—	—	—	—	—	—	—	—	—	—	1	—
With mental deficiency	—	1	—	—	—	—	—	—	—	—	—	—	—	1
Total	6	6	4	7	4	2	1	2	4	2	2	6	6	11
		12		11		6		3		6		8		17

TABLE 19. *Average Length of Hospital Residence during the Present Admission of All First Admissions in Residence on September 30, 1936*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	26	15	41	4.82	2.55	3.99
With other forms of syphilis	3	3	6	6.50	16.16	11.33
With other infectious diseases	—	4	4	—	1.48	1.48
Alcoholic psychoses	93	26	119	8.13	7.52	8.00
Due to drugs, etc.	1	—	1	.45	—	.45
Traumatic psychoses	6	—	6	12.65	—	12.65
With cerebral arteriosclerosis	106	127	233	2.45	2.92	2.71
With other disturbances of circulation	—	2	2	—	.97	.97
With convulsive disorders (epilepsy)	11	13	24	5.95	5.34	5.62
Senile psychoses	13	61	74	4.71	4.42	4.47
Involuntional psychoses	5	17	22	6.70	5.67	5.90
Due to other metabolic diseases, etc.	—	6	6	—	3.47	3.47
With organic changes of nervous system	12	6	18	4.73	6.98	5.48
Psychoneuroses	6	7	13	2.65	2.20	2.40
Manic-depressive psychoses	104	190	294	4.38	5.31	4.98
Dementia praecox	155	173	328	12.58	15.32	14.03
Paranoia and paranoid conditions	37	147	184	4.75	7.05	6.59
With psychopathic personality	2	15	17	1.97	5.81	5.42
With mental deficiency	49	52	101	10.53	7.43	8.93
Undiagnosed psychoses	1	6	7	3.50	1.97	2.19
Without psychoses	5	3	8	1.86	13.83	6.35
Total	635	873	1,508	7.22	6.31	6.19

TABLE 19A. *Average Length of Hospital Residence during the Present Admission of All Readmissions in Residence on September 30, 1936*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	29	9	38	5.14	4.48	4.98
With other forms of syphilis	—	3	3	—	6.81	6.81
Alcoholic psychoses	37	14	51	11.95	13.06	12.26
Due to drugs, etc.	1	—	1	.45	—	.45
Traumatic psychoses	2	1	3	22.50	22.50	22.50
With cerebral arteriosclerosis	9	8	17	2.48	2.22	2.36
With convulsive disorders (epilepsy)	6	8	14	10.49	10.48	10.48
Senile psychoses	1	7	8	2.50	6.20	5.74
Involuntional psychoses	2	12	14	1.47	14.16	12.35
Due to other metabolic diseases, etc.	1	4	5	7.50	4.98	5.49
With organic changes of nervous system	1	1	2	7.50	3.50	5.50
Psychoneuroses	2	2	4	2.47	.45	1.46
Manic-depressive psychoses	71	141	212	6.19	8.00	7.39
Dementia praecox	163	244	407	16.57	15.05	15.66
Paranoia and paranoid conditions	7	40	47	9.78	10.74	10.60
With psychopathic personality	5	7	12	5.30	11.35	8.82
With mental deficiency	22	35	57	11.81	8.35	9.68
Undiagnosed psychoses	1	—	1	17.50	—	17.50
Without psychoses	—	5	5	—	6.68	6.68
Total	360	541	901	11.83	11.53	11.65

TABLE 20. *Family Care Statistics for Year Ended September 30, 1936*

	Males	Females	Total
Remaining in Family Care September 30, 1935	—	13	13
Admitted to Family Care during the year	—	15	15
Whole Number of Cases within the year	—	28	28
Discharged from Family Care within the year	—	13	13
Discharged outright from Family Care	—	1	1
Returned to institution	—	12	12
Remaining in Family Care September 30, 1936	—	15	15
Average Daily Number in Family Care during year	—	14.00	14.00
Supported by State	—	14.00	14.00

*The Commonwealth of Massachusetts*

ANNUAL REPORT

OF THE

TRUSTEES

OF THE

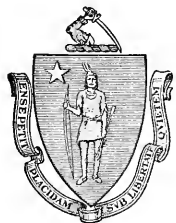
BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1937

THE NINETY-SEVENTH ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION ON ADMINISTRATION AND FINANCE  
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OCCUPATIONAL PRINTING PLANT  
DEPARTMENT OF MENTAL DISEASES  
GARDNER STATE HOSPITAL  
EAST GARDNER, MASS.

# BOSTON STATE HOSPITAL

(Post Office Address: Dorchester Center, Mass.)

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## TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council:*

The Board of Trustees of the Boston State Hospital respectfully submit their Annual Report for the year 1937.

The Board, as at present constituted, was appointed by His Excellency and confirmed by the Council on February 10, 1937. Following their appointment, the members of the Board of Trustees were informed by His Excellency of certain adverse conditions at the Boston State Hospital that had been brought to his attention, and which required immediate and thorough consideration. The Board entered forthwith into a careful and painstaking examination of every phase of the hospital service.

Our findings in the main confirmed the reported existence of certain irregularities, lack of proper attention to the care and comfort of the patients, uncleanness of the buildings and a considerably disorganized service. The present Superintendent, Dr. Harold F. Norton, appointed shortly before our present Board took office, had fallen heir to these unfavorable conditions and was already effectively planning to restore things to normal.

To facilitate the necessary reorganization of the hospital service, the Trustees thought it advisable to hold many hearings throughout the year in addition to their frequent personal visitation of the entire institution. The hearings revealed among other things that a small minority of the hospital personnel resented the administrative changes which it had been found necessary to make. To these, the alternative was given of willing and sympathetic cooperation or dismissal. To all helpful suggestions from the personnel, a willing ear was given and recent appreciable improvements in the general atmosphere of the hospital may well be attributed to these suggestions.

The Trustees are very happy to report that complaints on account of service or food are now at a minimum. The immediate administration of the hospital, we feel, is in competent hands, while every effort is being made to maintain the highest medical standards, with one end in view, the care and comfort of the patients. The moral tone of the institution is vastly improved.

However, the Trustees feel obliged to call to the attention of His Excellency, the need of new buildings to replace certain old buildings of third class construction. The continuance of these buildings, lacking in modern equipment as they are, and thoroughly outmoded for present day hospital purposes, is a matter of daily concern to the Superintendent and the Trustees.

The Board of Trustees is of the opinion that there has been lack of definite periodic supervision on many matters on the part of the State authorities. There should, for instance, be periodic inspection of stockrooms and periodic inspection of the buildings and their equipment. Such periodic inspections would be helpful to the State authorities and to the hospital administration and should carry with them definite recommendations for improvement.

Fully aware of your helpfulness during the recent reorganization period of the hospital, the Board of Trustees wish to take this means of thanking you for the confidence implied in their appointment to carry on this important work.

In detail, follow, hereon, the report of the Superintendent, Dr. Harold F. Norton, whom the Trustees are happy to commend for his very competent administration of the hospital during a most trying period of its history.

Respectfully submitted,

J. A. GREENE, M.D.

THOMAS J. SCANLAN, M.D.

THOMAS D. RUSSO

HARRY B. BERMAN

ALEXANDER M. SULLIVAN

GERTRUDE A. MACDONNELL

JOSEPHINE E. THURLOW, F.A.C.H.A., *Chairman*, 1937.

## REPORT OF THE SUPERINTENDENT

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1937, and the fiscal year ending November 30, 1937. Founded by the City of Boston in 1839, this marks the completion of its ninety-eighth year as a hospital for mental diseases, and the twenty-ninth year of its history as a state institution.

## MOVEMENT OF POPULATION

The number of patients on our books September 30, 1936, was 2,701. There were admitted during the year 882, making a total of 3,583 under care and treatment during the year. There were discharged to the community, 492 and transferred to other mental hospitals, 94. Three hundred and twenty-five deaths occurred leaving 2,672 patients on the books of this hospital on September 30, 1937, of which 2,368 were actually in the hospital and 304 patients on visit or otherwise absent.

## PERSONNEL

During the year Dr. James V. May, Superintendent, appointed in December 1917, retired in December 1936.

Dr. Gerald F. Houser, Assistant Superintendent, appointed November 1927, resigned February 1937,

Dr. Frederick LeDrew, Senior Physician, appointed August 1929, resigned February 1937.

Dr. Mary G. Noble, Senior Physician, appointed March 1905, retired February 1937.

Dr. Margaret McManamy, Senior Physician, appointed September 1931, resigned February 1937.

Dr. Geneva Tryon, Senior Physician, appointed July 1920, retired July 1937.

Dr. Stephen Wolanske, Assistant Physician, appointed November 1936, resigned December 1936.

Dr. Beatrice R. Kershaw, Assistant Physician, appointed July 1936, resigned March 1937.

Dr. Harold F. Norton, Senior Physician, appointed October 1934, was promoted to Superintendent January 6, 1937.

Dr. Purcell G. Schube, Senior Physician, appointed June 1933, was promoted to Assistant Superintendent February 10, 1937.

Dr. I. Paley Rubin was appointed as Senior Physician, May, 1937.

Dr. Theodore F. Lindberg was appointed Senior Physician, September 1937.

Dr. Dorothy E. Donley was appointed Senior Physician, November, 1937.

Dr. Norris B. Flanagan was appointed Assistant Physician, March 1937.

Dr. Volta R. Hall, Jr., was appointed Assistant Physician, April, 1937.

Dr. N. Anthony Bicchieri was appointed Assistant Physician, April, 1937.

Dr. Owen C. Mullaney was appointed Assistant Physician, June, 1937.

Dr. Joseph P. Thornton was appointed Assistant Physician, June, 1937.

During the past year there have been a number of relatively important changes in the administrative personnel which should be recorded: Samuel H. Franks, Steward, appointed December 10, 1933, resigned February 10, 1937. Linda F. Graves, Principal Clerk, appointed October 21, 1909, resigned February 10, 1937. Florence E. Armstrong, Head Social Worker, appointed May 10, 1926 resigned February 8, 1937. Mrs. Lillian S. Irvine was appointed Head Social Worker on September 16, 1937. Margaret M. Lee, Senior Clerk and Stenographer, employed October 19, 1925, was promoted to Principal Clerk, April 28, 1937.

## PSYCHIATRIC SERVICE

Staff meetings are held four times a week from 11:00 a.m. to 12:30 p.m. Pathological conferences are held on the second and fourth Thursday of every month.

Every Thursday there is a noon day Staff luncheon to which a prominent physician not associated with the hospital is invited to speak. The names of speakers and their subjects to date, are as follows:

Dr. Abraham Myerson, Mecholyl and Benzedrine

Dr. Leo Alexander, Micro-Incineration and Spectrographic Studies of the Brain.

Dr. Julius Loman, Intracranial Hydrodynamics

Dr. Michel Pijoan, Vitamin C.

Dr. A. Warren Stearns, Crime.

Dr. Tracey Putnam, Sedative Drugs in the Treatment of Epilepsy.

Dr. Houston Merritt, Alcoholic Psychoses.

Dr. Merrill Moore, Brain Tumors.

Dr. Wm. Damashek, Hematology.

Dr. Harry C. Solomon, Neurosyphilis.  
 Dr. William Lennox, Encephalography.  
 Dr. Franz Sachs, Psychoanalysis.  
 Dr. Frederick Gibbs, Electro-Encephalograph.  
 Dr. R. G. Hoskins, Endocrinology.  
 Dr. S. Tannhauser, Lipids.

#### MEDICAL SERVICE

The efficiency of our Medical and Surgical service has been greatly increased owing to the purchase and installation of new and up-to-date equipment.

Instead of having a number of patient buildings admit psychotic individuals, all the admissions to the institution are now received at the Psychiatric Clinic, where they are retained until they are completely examined and if it is then found that these individuals are not immediately recoverable, they are transferred to buildings more adequately suited for their care and treatment. The physicians in the Clinic are entirely responsible for these patients although the mental examinations of new admissions are rotated through the medical staff.

There is now on duty for a period of seven days at a time a night physician who is responsible for all of the medical and minor administrative duties in the institution at night. He makes rounds in every patient building in the hospital at least once every night. The medical staff rotate among themselves as night physicians.

#### DENTAL REPORT

Dr. George S. Rileigh, resident dentist, performed the following work during the year:

Extractions . . . . .	1,586
Examinations . . . . .	2,201
Prophylaxis . . . . .	1,097
Fillings . . . . .	1,206
Restorations . . . . .	1,299
Treatment . . . . .	1,688
Patients treated . . . . .	2,783

#### GENERAL OPERATIONS

Practically all of the patients' buildings at this institution have been scrubbed, cleaned and re-painted. A cafeteria has been established in the West A Building. A new sink and dishwasher have been installed and the kitchen and dining rooms have been equipped with new tables and chairs. Many of the wards have been equipped with new beds.

West B building — The operating room in this building has been renovated and re-equipped. The offices and waiting rooms in the building have been refurnished. New linoleum has been laid on many of the floors. The dining rooms have been equipped with new furniture. Many of the wards have been furnished with newly painted beds.

West C and D buildings and E1 and E2 cottages — New heating has been installed wherever possible and many of the unsanitary conditions in these buildings have been eliminated.

West F building — The congregate dining room in this building has been abolished and small dining rooms on the first floor have been completely re-equipped. The operating room has been renovated and new equipment installed. New linoleum has been laid on many of the floors. The beds on the wards have been newly painted.

West G building — New linoleum has been laid on many of the floors. In one section of the building, new terrazzo floors have been laid. Newly painted beds have been placed on all the wards. The dining rooms have been refurnished with new tables and chairs and the kitchen re-equipped with sinks, cabinets and refrigerators.

East A building — New lavatories and fixtures have been installed on both floors. Lavatories have been painted.

East B building — New plumbing has been installed and new linoleum laid on the floors of the wards and in the sun porches.

East D building — Lavatories have been repaired. Many old broken cabinets have been removed from this building.

East E building — New light fixtures and new lavatories have been installed.

East F building — New electric light fixtures suspended from the ceilings. New linoleum laid on the floor. The dining room and kitchen on the first floor have been abolished and established on the second floor.

East G building — The kitchens and dining rooms have been abolished. Newly painted beds have been placed on the wards.

#### PATIENTS

All the patients from the West C — D — E1 and E2, a large number from West F, West G and West A buildings, who formerly were eating on the wards, are now eating in the West patients' cafeteria. In the East Group, all of the patients from the A — C — D — E, first floor of the F building and G buildings are now eating in the East patients' cafeteria. Many of these patients formerly ate their meals in the ward dining rooms. This concentration on the feeding facilities has made it possible to serve all of the patients hot, nutritious food and a type of food which it was practically impossible to give them previously. The patients who cannot be fed in the cafeteria are fed in small dining rooms in their respective wards. These dining rooms have been painted, equipped with new tables and chairs, new dishes and silver and are entirely appropriate for the services which they render. It is interesting that when our first attempts were made to get patients to go to the dining room, it was found that many of these patients were rather feeble, but when this procedure was persisted in, these individuals rapidly gained strength and at the present time they all enjoy going to the cafeteria and have gained markedly in their physical condition.

Due to the fact that all of the beds on the wards were in bad condition and needed painting, a bed stripping and painting project was established in the hospital and many hundreds of beds have been stripped of their old paint and repainted an attractive shade of green. These beds are then placed back on the wards and many have been equipped with new mattresses and pillows.

Although the quantity of sheets, pillow cases, bedgowns, dresses and other articles of this nature are not by any means adequate as yet, there is an infinitely larger amount of them present now than formerly. This increase naturally has thrown a greater load on our laundry but the installation of much new equipment therein has helped to take care of this additional laundry load quite well.

The nursing care of the patients has improved immeasurably and all nursing is under direct supervision of the Superintendent of Nurses. There are now upon many male wards as well as upon all female wards, female nurses and attendants. All patients' buildings are in charge of female registered nurse supervisors and all wards are under the supervision of female registered nurses.

#### RECREATIONAL THERAPY

Recreational activities of the patients have been enormously increased. In addition to their regular occupational therapy work, there has been instituted a physical therapy program, a program of afternoon teas, dances and card games. Moving pictures are shown twice a day on Wednesday of each week. There have been a large number of band concerts and orchestras during the year. During the summer months there were five field days with 2,000 patients out on the grounds on each occasion for the afternoon and early evening, having had their supper on the grounds. There have been approximately 2,000 patients going to entertainments each month. These programs the patients have enjoyed enormously and it is felt that they have contributed immeasurably to the improvement in their mental condition. Other therapeutic programs have been established for the patients, such as painting, daily walks, carpenter work, sewing, mending, laundry and kitchen work.



The following is a typical month's recreational program:

September	September
1 — Moving pictures	13 — Group singing
2 — Baseball	15 — Moving pictures
4 — Baseball	17 — Band concert
5 — Baseball	18 — Baseball
6 — Band concert, Baseball	19 — Band concert
8 — Moving pictures	20 — Group singing
9 — Baseball	22 — Moving pictures
10 — Band concert, Dance	26 — Band concert
11 — Baseball	27 — Group singing
12 — Band concert	29 — Moving pictures

More patients are attending church services now than before. Each Sunday there is a 6:00 a.m. mass for employees, 8:30 a.m. mass for patients, and 9:30 a.m. services for Protestant patients. A new Hammond electric organ has been purchased for the chapel for church services and other recitals. This is a very beautiful instrument and an enormous improvement over our old antequated organ which had been used in this hospital for years.

The program of keeping the patients well fed, interested and occupied has naturally decreased the amount of physical illness in the patients at this hospital.

#### OCCUPATIONAL THERAPY DEPARTMENT

There are eleven members on the census of the Occupational Therapy department. One male attendant has been transferred from the nursing service and one from the Industrial department has been assigned to the department.

The aim of the activities carried on has been to serve the greatest number of patients to the highest advantage of all.

In the spring the patients were accompanied on their daily outdoor exercise in ward groups. As the need arose, 1,845 garments brought in by relatives were marked for the use of the individual patients. When the hospital mending became a problem 1,769 articles, dresses, underwear, bed spreads, sheets, etc., were mended. As renovating became imperative 1,409 pieces of furniture, benches, chairs, tables, etc., were scraped, painted and finished under proper supervision. In addition the demand for key cords, face cloths, bed jackets, bed slippers for use on the wards has been met as far as possible.

At the St. Patrick's day party in March members of the department helped to handle the large number of visitors and relatives; were responsible for the Field Day sports in June and in July; helped in the Labor Day sports program; and took male patients to the first Braves Field ball game. Indoor and outdoor recreation have been daily events, croquet, ball playing, badminton, pingpong, etc.

The average number of patients occupied during the day is 257, with a total monthly contact of 448 different patients.

#### HYDROTHERAPY DEPARTMENT

The number of patients treated — 60. The number of treatments given — (hydro) — 6,710: — Salt glow, 571; Sitz baths, 513; Saline baths, 191; Electric light baths, 84; Hot and cold to spine, 18; Foot baths as pre-treatment, 1; Vapo baths, 1; Shampoos, 481; Hair shampoos, 129; Needle sprays, 1,907; Fan douches 1,514; Jet douches, 1,300.

The number of patients in wet sheet packs — 193. The number of packs 18,109 and the number of hours 42,661.57;

The number of patients in continuous baths — 172. The number of baths 7,275 and the number of hours 42,932.47.

The following treatments were administered in the East Group; the number of patients — 44; the number of treatments — 4,262; — Needle sprays, 3,210; Tub shampoos, 526; Hair shampoos, 526.

#### ENGINEERING DEPARTMENT

East C-D-E and F buildings — The plumbing, including, water supply piping, water closet bowls, wash bowls, sinks, fixtures in these buildings have all been replaced with the newer class type of modern plumbing. Tile flooring has replaced the old wooden floors. Soap stands and towel racks have been installed for the

comfort of patients. The water supply pipes have been replaced with new brass pipes and the size pipe installed makes it possible for a sufficient amount of water to be drawn at all times. New thermostatic hot water mixing valves on each individual bath tub and on all shower baths in these buildings insures the safety of the patients at all times. The temperatures cannot exceed beyond the safety point. In the past only one master mixing thermostatic valve controlled the entire hot water supply for each building. These buildings have been furnished with new hot water copper storage tanks in order to have a proper supply of hot water to meet the demands of service. By the installation of the new water supply pipe lines and new risers the water pressure coming into these buildings has been increased to full water pressure. More sanitary drainage is also accomplished by these improvements.

The steam heating system of East Group buildings has had over 160 feet of new six inch underground pipe in basements installed, to replace old return piping that was in a very poor condition. One hundred and fifty feet of  $1\frac{1}{2}$ " return piping has replaced the same amount of return piping that was entirely clogged up with dirt and sediment and this condition prevented properly heating these buildings. More of this return piping must be removed in order that all of the buildings be heated properly.

Laundry building — A new motor driven mangle was installed. A new steam dryer machine was installed with new extractor machines, new electric panel switch board so that each machine can be operated separately thereby eliminating unnecessary shut downs.

West F building — The galvanized water supply pipes including main water supply and all risers leading off main supply have been replaced with larger size brass pipes. New thermostatic mixing valves have been installed on all bath tubs, etc. to prevent any danger of scalding to patients. The 1st and 2nd floors have been made over for the sick patients and employees. Plumbing fixtures have been added including wash bowls, etc. Old fixtures have been replaced with modern plumbing. New tiling has been installed on the 3rd floor in the kitchen. New electric cooking ranges have been installed on the 1st and 2nd floors. New monel sinks have been installed. In the basement a new barber shop was opened. New plumbing fixtures, 2 new pedestal wash sinks and new drainage piping for the sinks have been installed.

West G building — New thermostatic mixing valves have been installed in hydro tub rooms on all individual baths.

West C building — Approximately 700 sq. ft. of radiation has been installed to insure sufficient heat to warm building this coming winter so that the patients will be comfortable at all times. This direct steam radiation will also protect the new automatic sprinklers and keep them from freezing, so that in case of emergency they will be ready for use. The water supply coming into building was insufficient as only a 1" diameter lead pipe was the source of supply. New brass pipe line  $1\frac{1}{2}$ " in diameter was installed to the city main water supply and all individual pipes renewed with new brass piping.

West D building — Direct steam radiation has been installed.

West Kitchen — The steam kettles have all been rearranged for sanitary purposes. A new concrete basin laid under the kettles will keep the floor clean at all times. New steam and water piping installed and each kettle has been equipped with a steam safety valve to protect kettle from serious damage from steam pressure. Old soap stone sinks have been replaced with monel sinks. Urinals have been replaced by modern plumbing. A cafeteria has been installed with automatic refrigeration for drinking water and ice cream making. New 2" brass pipe line replaces old galvanized pipe line which was insufficient to operate hydraulic freight elevator.

#### EMPLOYEES

The working conditions of employees in this hospital have been improved. They have been given facilities for much recreation in the institution. They are permitted to have dances in the auditorium and they have organized a social club which functions very well.

The discipline of the employees is handled by means of a hospital discipline committee which consists of: 2 trustees, 2 physicians, 2 supervisors, 2 attendants and 1 special attendant. This committee investigates any infractions of rules by any

employee and presents the results of their investigation to the Superintendent with their recommendations and he decides upon the disposition of the case. The committee members are elected by the various hospital groups which they represent.

Physicians who are not living in their own homes on the grounds are now all living in the Administration building. The farmhouse has been converted into a two family house for two physicians and their families. The east staff house and east male employees' home have been converted into quarters for female nurses.

The east and west staff dining rooms have been abolished and all doctors not living in their own homes are eating in the dining room in the Administration building. The west congregate dining room and kitchen has been completely repainted and the employees dining room and the tables and chairs have been stained and a new cafeteria has been completed and functions perfectly.

With the creation of the employees' sick quarters, they have been able to receive excellent medical and nursing care and all sicknesses and injuries employees have had, have been adequately cared for in this new unit.

#### SOCIAL SERVICE DEPARTMENT

There have been several changes in the personality of the Social Service Department within the past year. Miss Florence E. Armstrong, Head Social Worker since May 10, 1926, resigned on February 8, 1937. Miss Esther Coleman acted as Head Social Worker for several months until the vacancy was filled by the appointment of Mrs. Lillian S. Irvine as Head Social Worker on September 16, 1937. Mrs. Irvine received her Bachelor's Degree at Mt. Holyoke and has studied at Boston University School of Social Work. She received training in social work at the Boston Psychopathic Hospital. She was employed as psychiatric social worker at the New Hampshire State Hospital for four years and was Head Social Worker there the last two years. She had experience in social case work with the Child Welfare House in Lynn and in flood diaster work with the Red Cross in Ohio. Miss Evelyn Raynes resigned March 1937, after 8 years of service. Mrs. Alice M. Brearton and Mrs. Phyllis Foster were appointed to fill vacancies in the department and others have been associated with the department for short periods.

Since June 1, 1937, the Social Service Department has been responsible for taking the medical histories of all patients admitted to the hospital, and there have been 315 admissions since then. Many histories were formerly taken by the medical staff.

Full social investigations have been made in all cases admitted for observation under Sections 77, 100 and 104 of Chapter 123 of the General Laws. These consist of medical history, information from social agencies, school and work records, reports from outside physicians, alcoholic history and court record. This investigation assists the staff in understanding the personality of the patient. During the year we have made full social investigations on 69 cases under Section 77 and 41 cases under Section 100. There were no cases under Section 104.

The work of the department consists not only of taking histories and making investigations, but also of supervising patients on visit and in family care, locating relatives, giving advice and assistance to patients and their families and doing social case work in selected cases.

The occupational therapy center at City Mills was discontinued in March 1937. This center was under the supervision of the head social worker and was used for patients out in family care. Of 36 patients boarded out at City Mills for any length of time during the 3 years from March 1, 1934, to March 4, 1937, 7 are on visit, 10 are patients in the hospital, 2 have died, and 17 have been discharged. On September 30, 1937, there were 7 patients under family care in the community. The following is a numerical summary of social service cases for the year:

	<i>Male</i>	<i>Female</i>	<i>Total</i>
New cases . . . . .	473	441	914
Renewed cases from previous years . . . . .	31	44	75
Renewed cases within the year . . . . .	37	38	75
Continued cases from previous year . . . . .	14	52	66
Cases closed during the year . . . . .	540	552	1,092
Cases continued to following year . . . . .	15	23	38

## PATHOLOGICAL LABORATORY

The pathological work was carried on by Dr. Naomi Raskin, with the help of two technicians and two volunteer workers. Pathological conferences were held, except for the summer months, when the cases which came to autopsy were discussed and the pathological material was demonstrated to the members of the staff. The work on the effect of the benzedrine sulphate on the hemopoietic system was carried on in collaboration with Dr. Schube and the paper published in the New England Journal. The work on cholesterololysis in the serum of normal men was completed and accepted for publication. The working facilities of the laboratory have been increased by the purchase of the microscope and the photoelectric colorimetre.

## PHYSIOTHERAPY AND X-RAY DEPARTMENT

The work of the physiotherapy and X-ray department has been carried on during the year by Mrs. Gertrude Moses. During the year 818 treatments were given to 47 patients. The treatments were as follows: ultra violet ray 260; infra red ray 201; diathermy 114; massage 216; sinusoidal 27. There were 946 x-ray examinations and 426 fluoroscopic examinations. The total number of patients x-rayed was 502 and 370 employees.

## SCHOOL OF NURSING

Miss Mary Alice McMahon, R.N., Principal of the school of nursing has had charge of the nursing service of the hospital. Following is a census of the nursing service for the year ending September 30, 1937:

	Male	Female	Total
Principal, Training School for Nurses . . . . .	0	1	1
Assistant Principal, Training School for Nurses . . . . .	0	1	1
Supervisors (Chief) . . . . .	0	2	2
Assistant Supervisors (Days) . . . . .	8	12	20
Assistant Supervisors (Nights) . . . . .	3	3	6
Head Nurses, Registered . . . . .	0	13	13
Attendant Nurses . . . . .	149	232	381
Graduate Registered Nurses of Boston State Hospital now in service . . . . .	0	5	5

*Accepted during the Year*

	Male	Female	Total
Registered Nurses . . . . .	1	20	21
Attendant Nurses . . . . .	223	143	366

*Left during the Year*

Graduates . . . . .	1	17	18
Graduate Psychiatric Nurses . . . . .	0	19	19
Student Psychiatric Nurses . . . . .	0	25	25
Attendant Nurses . . . . .	245	90	335

*Psychiatric Nurses*

Graduate Head Psychiatric Nurses . . . . .	0	17	17
Graduate Psychiatric Nurses . . . . .	0	4	4
Seniors . . . . .	1	7	8
Juniors . . . . .	0	23	23

Total registered class of 1936 — 18 passed

Department of Mental Diseases Examinations.

Discontinued October 1, 1937.

Total number of classes . . . . .	43	369	412
Number of persons taught . . . . .	223	143	366

### AGRICULTURAL ACTIVITIES

Mr. Ralph B. Littlefield resigned as Head Farmer February 1937. Because it had been planned to abolish the farm at this hospital as of November 30, 1937, the position was not filled. A small quantity of farm products were raised. The value was \$2,101.20. The farm was abolished November 30, 1937.

### RESEARCH LABORATORY

During the past year the Research division of the Boston State Hospital carried out researches which can be mainly arranged under the following headings:

- I. Human autonomic pharmacology
- II. General neuropathological studies
- III. Vitamin deficiency and other studies
- IV. Clinical and therapeutic studies.

I. *Human autonomic pharmacology.* — The laboratory continued its experimental work with four drugs so balanced as to mimic, in large measure, the interplay of substances which the body itself produces. These drugs were benzedrine, sulfate, mecholyl chloride, prostigmin and atropine. Studies were carried out on the structures of the body in order to discover their autonomic relationships. A summary of the results obtained, which was presented at the annual meeting of the American Medical Association last June, is the following.

A. General principles: — We have accepted the theory that the autonomic nervous system manufactures chemical substances which regulate visceral activity. The autonomic activity is the resultant of three sets of chemical substances: (1) sympathin which is the active agent in bringing about what are here called adrenergic effects and which is mainly formed at the junction between the second sympathetic neuron and the reacting cell. (2) Acting in a balance to this chemical is acetylcholine which is mainly produced by the parasympathetic neurons and operates at the junction between the neurons and the junction of the second parasympathetic neuron and the reacting cell. (3) Cholinesterase is an enzyme, the function of which is to hydrolyze or destroy the acetylcholine. It is present in the tissues and in the blood, and acts so as to render the activity of the parasympathetic enzyme, acetylcholine, intermittent. Thus, there is a balance, on the one hand, between the adrenergic substances of the sympathetic nervous system and the cholinergic substances of the parasympathetic nervous system and, on the other hand, a more local balance between the acetylcholine and the esterases.

B. Drugs: — The drugs used have been selected because of their potency and the predictability of their results. The adrenergic substance used is benzedrine sulfate (benzyl-methyl carbamine or Beta-phenyl-isopropylamine) and the cholinergic substance, mecholyl (acetyl-beta-methylcholine chloride). These drugs are relatively balanced in their activities, although not entirely. Prostigmin (dimethyl-carbamic ester of m-oxyphenyl-trimethylammonium methylsulfate) is used to destroy or inhibit the esterases, so that the drug is a powerful synergist of mecholyl. The function of atropine sulfate (sulfate of tropeic ester of tropine) in these experiments is to lessen or block the activity of mecholyl or of acetylcholine, and consequently to act as a synergist to benzedrine. There is lacking in this series of experiments something which will paralyze the sympathetic, but no drug has as yet been developed which safely performs this function.

C. General plan: — The general principle of the work done has been to study organ by organ the body of human beings who, though suffering from mental disease, are organically healthy insofar as our present day knowledge goes.

1. The eye: — By instillation of these drugs into the eye, the results which have been obtained show the following:

(a) The palpebral fissure is narrowed by cholinergic (mecholyl, prostigmin) stimulation, widened by adrenergic (benzedrine) stimulation. These results undoubtedly are due to a local effect upon Muller's muscle.

(b) The pupil is a balanced function, cholinergic substances (mecholyl, prostigmin) narrowing the pupil, adrenergic substances (benzedrine, etc.) widening it. By paralyzing the parasympathetic through atropine, the pupil is widened. Atropine acts as a synergist to benzedrine in this capacity. Prostigmin is a synergist to mecholyl.

(c) The light reaction is a balanced function between darkness and light stimulation, and chemically between cholinergic (mecholyl) and adrenergic (benzedrine) stimulation.

(d) The intraocular pressure is a balanced function, cholinergic substances lowering the tension, adrenergic substances increasing it.

(e) The lens, although anatomically innervated by the parasympathetic, may be increased in its capacity to accommodate by cholinergic substances (especially by prostigmin), and lessened in its capacity to accommodate by adrenergic substances and atropine.

(f) Argyll Robertson pupil: The principal defect in the Argyll Robertson pupil is an incapacity, or loss of the full power, of sympathetic activity although the parasympathetic is to some extent involved. By adding adrenergic substances (benzedrine sulfate  $\frac{1}{2}$  to 1 per cent) the pupil dilates and becomes moderately reactive to darkness and to daylight.

(g) In the first stage of prostigmin instillation, the presbyopic eye becomes myopic. In a short time it becomes emmetropic. In one case the capacity of the lens to react to the near point became that of a man of 35, the actual age of the individual being 55.

2. Sweat, flushing, etc.: Sweat, flushing and rhinorrhea appear to be cholinergic functions, despite the fact that the structures involved are sympathetic in innervation. Under mecholyl, sweating, flushing and rhinorrhea become very marked. Prostigmin acts as a marked synergist to these reactions of mecholyl.

(a) Local sweat: The sweating produced by mecholyl is alkaline. Furthermore, by introducing mecholyl into the skin an interesting local sweating is caused, which is alkaline. This sweating is stopped by the previous use of atropine, is increased by the previous use of prostigmin and is not affected by benzedrine.

3. Gall bladder: Atropine sulfate markedly affects the emptying time of the gall bladder after a fatty meal. Benzedrine sulfate does not affect this emptying time for a period of two hours after the ingestion of the drug. At the end of that time there is a marked holdup of the emptying reaction.

4. Heart and blood pressure: Mecholyl in small doses stimulates the pacemaker which is more of an adrenergic than a cholinergic function, and at the same time decreases the conductivity so that the P — R interval is lengthened. Heart block is with difficulty obtained by mecholyl alone unless excessive doses are given. Prostigmin slows the pacemaker somewhat and lessens the conductivity of the bundle of His so that the P — R interval is lengthened. The addition of prostigmin to mecholyl produces extraordinary and marked effects on the heart, so that the pulse becomes very slow and heart block, even asystole, may be brought about. Atropine immediately checks the effects of mecholyl or prevents them from coming about if given in advance. By itself it stimulates the pacemaker. Benzedrine sulfate appears to have no definite effect upon the conducting mechanism of the heart, although the pulse rate becomes somewhat slower.

5. Blood pressure: The blood pressure is apparently a balanced function insofar as autonomic pharmacology is concerned. Benzedrine sulfate given in large doses either by mouth or subcutaneously raises the blood pressure very markedly. It tends to raise the blood pressure against the depressing effects of amytal narcosis. Mecholyl lowers the blood pressure markedly, but for a short time. Prostigmin, having little effect itself, is a marked synergist to mecholyl. Atropine paralyzes or prevents the effects of mecholyl and acts as a synergist to benzedrine. The combination of prostigmin and mecholyl, as well as the combination of benzedrine and atropine, produces results which must be carefully watched.

6. Gastrointestinal tract: Mecholyl has a marked effect on the atonic intestinal tract. In a typical case, it ordinarily took 12 days for the bismuth meal to make the transit. Mecholyl speeded up the process so that within five minutes the intestinal tract was tonic, and this increased tonicity lasted 24 hours. Physostigmin has a similar effect, as shown on the dog's stomach. Benzedrine relaxes spasm of the gastrointestinal tract, whether of functional or organic origin. Aside from the therapeutic value, it is of great help to the X-ray man in clearly defining lesions and

in differentiating between functional and organic spasm.

7. Urinary bladder: Mecholyl by itself has little effect on the urinary bladder. The combination of mecholyl and prostigmin produces a marked contraction of the dilated bladder, in a typical case to about one-third of its original capacity. Atropine stops this effect and restores the bladder to more than normal size. Benzedrine sulfate relaxes the bladder, in which it is aided by atropine.

8. The synergism of prostigmin and mecholyl: This is illustrated by the effect on blood pressure, heart activity, and the secretion of the juices of the stomach, as well as the sweating reaction, the urinary bladder, and in practically every function which is involved by the use of mecholyl; including the eye.

9. Esterases: The evaluation quantitatively of the esterases has proceeded to the point where it is now a routine procedure in our laboratory, as well as in other places. The technique which depends upon the hydrolysis of acetylcholine by blood serum has been standardized and is not difficult.

10. Iontophoresis: Iontophoresis is the introduction of chemical substances by the use of the galvanic current into the skin. On the positive pole, there is placed the substance to be introduced; on the negative pole, the salt solution. We have shown that blood pressure can be continuously and quite markedly reduced by the iontophoresis of mecholyl. The gastric juice can be maintained at an alkaline condition for a long period of time and without the general untoward effects noted when mecholyl is injected intramuscularly. Prostigmin enhances the iontophoresis of mecholyl. Atropine blocks it. Benzedrine sulfate may be introduced by iontophoresis to produce the usual benzedrine results. The method has the advantage of a slow and continuous introduction of chemical substances into the body.

11. Summary: It may be stated that many functions of the human organism may be manipulated at will, in a predictable and quite marked manner, by the use of the autonomic drugs mecholyl, benzedrine, prostigmin and atropine.

In addition, we have devised a new method for the quantitative study of the esterases which is based on the principle that as acetylcholine is destroyed by esterases, it liberates acetic acid, which in its turn liberates the  $\text{CO}_2$  of the blood. The measurement of the  $\text{CO}_2$  gives a definite index of the esterase activity of a specimen of blood examined. We are carrying out experiments in this direction to determine whether or not various levels of esterase activity are present in the various diseases.

Two therapeutic approaches are indicated by our work: (1) The extraordinary effect of benzedrine sulfate on sleep has opened up channels of investigation in the interaction of benzedrine sulfate and sleep-producing drugs. Work is in progress both in epilepsy and in dementia praecox in this direction. (2) The fact that in syphilis there seems to be a lack of adrenergic substance suggests therapeutics in this direction by adding adrenergic substances to the treatment.

## II. General neuropathological studies:

### a. Mineral studies:

1. The microincineration method: This method has definitely shown that minerals play an important role both in the normal and pathological cells of the body and especially of the nervous system. (1) All young cells, whether embryonic, representing new growth or occurring in the course of inflammation, have more minerals than old cells. This is particularly important in the case of the new growths and the inflammations, since there are psychiatric cases associated with new growth and inflammation. (2) In the neuron the minerals are distributed in the nucleus, but the nucleolus is free of minerals; in the cytoplasm in general following the distribution of the chromophilic granules. They are thus present in the dendrite but not in the axone. When the cell is injured, so that the Nissl granules disappear, minerals also disappear. The two processes, however, do not run parallel, as is shown in tuberculous sclerosis, a type of feeble-mindedness in which the Nissl granules disappear but the minerals are increased in amount. The various parts of the nervous system differ from one another in the degree and distribution of the minerals.

2. The spectroscopic method: This method, carried out in collaboration with the Massachusetts Institute of Technology, shows the following findings: (1) The normal cerebral gray matter of the human adult is richer in iron, calcium, magnesium and sodium, while normal white matter is richer in phosphorus. (2) The

brain of the human newborn is richer in most elements but poorer in iron than that of the adult. The lowered iron content seems to correspond to the lesser vascular density of the new born brain. (3) In foci of ischemic necrosis, softening, and multiple sclerosis, the alteration in the spectroscopic picture is surprisingly insignificant as compared to the intensive demineralization of the tissue, as demonstrated by microincinerated preparations in these conditions. However, while the tissue itself appears demineralized in microincinerated preparations, ample mineral is demonstrated in hypermineralized scavenger and glia cells, which stand out against the otherwise demineralized background of these lesions. Our spectroscopic studies justify our conclusion that these scavenger and glia cells contain most of the minerals in about the same proportions which normally are evenly distributed within the tissue, with the exception of potassium which is diminished in freshly softened areas and of iron which is increased in all these lesions. The iron in these lesions is probably hematogenous in nature and points to vascular dilatation, stasis, or thrombosis in the areas involved. (4) In dementia paralytica the total iron is diminished rather than increased; this is probably due to the fact that the loss of capillary density is greater than the perivascular and intragial iron deposits. (5) In lead encephalitis, more lead is deposited in the gray than in the white matter of the brain. (6) In oedematous brain tissue, sodium and calcium are increased. This increase is relatively greater in the white than in the gray matter. (7) The ash of meningioma was found to be ten times as rich in calcium as the normal gray matter, while the other elements were diminished. The ash of a spongioblastoma of mixed type, with a great deal of protoplasmic and fibrillary astrocytic differentiation, showed more potassium, but less phosphorus and magnesium than normal gray matter.

b. Local anaphylactic lesions of the brain in guinea pigs:

Local anaphylactic lesions in the brain differ only in degree from those produced by a single injection of antigen. They show hemorrhage, necrosis, thrombosis of precapillary vessels, capillary anemia and gross demineralization. Two new methods have been utilized: the microincineration method and the Lepehne-Pickworth method (benzidine stain) for selective staining of the vascular bed. These experiments show that the sensitization of an animal predisposes him to vascular and other lesions.

c. The vascular pattern of various lesions of the human central nervous system:

A study of neuropathologic lesions with the new benzidine stain (Lepehne-Pickworth method) has been made. The lesions examined include: arterial and arteriolar disease and occlusion, venous occlusion, trauma (recent and old), inflammatory disease, poisoning and tumor.

In certain lesions of chronic alcoholism (Wernicke's disease) the venous congestion with varicosities, secondary to capillary paralysis, is well demonstrated.

The method is invaluable for the study of the minute arterial and venous structures of the brain.

d. Other neuropathological studies:

Neuropathological studies by several methods, including microincineration and spectroscopic examination, have been made. The Lepehne-Pickworth method and also the routine neurologic stains are being carried out on the lesions of alcohol, beri-beri, other vitamin deficiencies, the various forms of idiocy and the major psychoses. These will be elaborated in next year's report. What may be stated at present very definitely is that important and new findings have already come to our attention.

*III. Vitamin deficiency and other studies:*

An elaborate series of studies has been made on vitamin deficiencies. Each of the vitamins has been separated out from the feeding of pigeons and the results noted both clinically and post-mortem. The results bear very heavily both on the genesis and the therapeutics of the diseases due to vitamin deficiency. Interesting findings have already been discovered in the bone marrow and the brain substance. These results will be reported in next year's report.

This brief statement covers an immense amount of work with very valuable results but, as yet, not sufficiently linked up with a specific etiologic factor involved to be safely discussed at the present time.



#### IV. *Clinical and therapeutic studies:*

On the clinical side, certain main trends are being followed. In the first place, the relationship of the neuroses to the psychoses is being intensively studied. The neuroses were discussed from the standpoint of the evolution of symptom-complexes in a paper entitled, "Neuroses and Neuropsychoses — The Relationship of Symptom Groups" (by A. Myerson in *Am. J. Psychiat.* 93, 2:263-301, Sept., 1936). The point made in this paper is that there is a natural history to the evolution of the neuroses of fairly definite type, and that frequently by the mere increase of the so-called neurotic symptoms, the so-called psychoses appear. In other words, it seems to the director that the dividing line between the neuroses and the psychoses is artificial and is still based on legal concepts, to wit, whether or not a patient is committable. By evolution and addition the hypochondriacal idea becomes the somatic delusion. The feeling of unreality becomes translated into that falsification of unreality, called delusion. The feeling of self-blame, of a more or less natural type, becomes translated by increase into the delusion of self-accusation. The feeling that one is being scrutinized in an unfriendly way becomes the delusion of reference. The tendency in all depressions to react only to the distressing and sad accounts in the newspapers finally becomes the complete melancholia, whereby the world becomes divested of all interesting and hopeful events and trends. A further paper is in press, citing cases illustrating the general principles outlined in the first paper. . . . It appears quite likely that even the term psychosis is a stumbling block to clear thinking in psychiatry, and that in the interests of advance in the field the term should be dropped and no artificial barrier created between the psychotic and the non-psychotic groups of the mental diseases.

A further study is in progress, with a paper already in press, on the role of passivity and the objective signs of this in the development of dementia praecox and kindred states. Certain interesting eye signs have been discovered, which indicate that both in the organic disease of Parkinson's syndrome and in certain of the mental states, the eyelids react in extraordinary measure to stimulation. Coupled with this, an objective measurement of the conduct in the realm of passivity and activity is being made with the collaboration of the psychologist of this institution.

#### PAPERS PUBLISHED

1. Physiologic effects of acetyl-beta-methylcholine (mecholyl) and its relationship to other drugs affecting the autonomic nervous system. *Am. J. Med. Sci.* 193, 2:198 (Feb.) 1937. (A. Myerson, J. Loman, W. Dameshek).
2. The effect of benzedrine sulfate on the hematopoietic system. *New England J. Med.* 216, 21:922-923 (May 27) 1937. (P. G. Schube, N. Raskin, E. Campbell).
3. The effect of benzedrine sulphate on certain abnormal mental states. *Am. J. Psychiat.* 94, 1:27-32 (July) 1937. (P. G. Schube, M. C. McManamy, C. E. Trapp, A. Myerson).
4. Human Autonomic Pharmacology. IV. The effect of benzedrine sulfate on the gall-bladder. *New England J. Med.* 216, 16:694-697 (Apr. 22) 1937. (P. G. Schube, M. Ritvo, A. Myerson, R. Lambert).
5. Human Autonomic Pharmacology. V. The effect of acetyl-beta-methylcholine (mecholyl) on the atonic colon. *Radiology*, 28:552-558 (May) 1937. (A. Myerson, P. G. Schube, M. Ritvo).
6. Human Autonomic Pharmacology. VI. General and local sweating produced by acetyl-beta-methylcholine chloride (mecholyl). *Am. J. Med. Sci.* 194, 1:75-79 (July) 1937. (A. Myerson, J. Loman, M. Rinkel).
7. Human Autonomic Pharmacology. VIII. The effect of iontophoresis on the gastric juices with especial reference to acetyl-beta-methylcholine chloride (mecholyl). *Am. J. Digest. Dis. & Nutr.* 4, 6:386-390 (Aug.) 1937. (J. Loman, M. Rinkel, A. Myerson).
8. Human Autonomic Pharmacology. IX. The effect of cholinergic and adrenergic drugs on the eye. *Arch. Ophth.* 18:78-90 (July) 1937. (A. Myerson, W. Thau).
9. Human Autonomic Pharmacology. X. The synergism of prostigmin and mecholyl. *J. Pharmacol. & Exper. Therap.* 60, 3:296-311 (July) 1937. (A. Myerson, M. Rinkel, J. Loman, P. Myerson).

10. Human Autonomic Pharmacology. XIV. The use of acetyl-beta-methylcholine chloride (mecholy) as a diagnostic test for poisoning by the atropine series of drugs. J.A.M.A. 109, 8:561-564 (Aug. 21) 1937. (W. Dameshek, O. Feinsilver).

11. The neurone as studied by microincineration. Anat. Rec. 67, 1937. (L. Alexander).

12. Local anaphylactic lesions of the brain in guinea pigs. Am. J. Path. 13, 2:229-248 (Mar.) 1937. (L. Alexander, A.C.P. Campbell).

13. The mineral content of various cerebral lesions as demonstrated by the micro-incineration method. Am. J. Path. 13, 3:405-439 (May) 1937. (L. Alexander, A. Myerson).

*The following papers in press:* (or published after close of fiscal year).

1. Human Autonomic Pharmacology. VII. The effect on the normal cardiovascular system of acetyl-beta-methylcholine chloride, atropine, prostigmin, benzedrine, with especial reference to the electrocardiogram. (W. Dameshek, J. Loman, A. Myerson). Am. J. Med. Sci. 195:88-103 (Jan.) 1938.

2. Human Autonomic Pharmacology. XI. The effect of benzedrine sulphate on the Argyll Robertson pupil. (A. Myerson, W. Thau).

3. Human Autonomic Pharmacology. XII. Theories and results of autonomic drug administration (A. Myerson) J.A.M.A. 110, 2:101-103 (Jan. 8) 1938.

4. Human Autonomic Pharmacology. XIII. The effect of mecholy and prostigmin on the size and tonus of the urinary bladder. (B. Greenberg, J. Loman, A. Myerson).

5. Human Autonomic Pharmacology. XV. The effect of acetyl-beta-methylcholine chloride (mecholy) by iontophoresis on arterial hypertension. (J. Loman, M. F. Lesses, A. Myerson).

6. Human Autonomic Pharmacology. XVI. Benzedrine sulfate as an aid in the treatment of obesity. (M. F. Lesses, A. Myerson) N.E.J. Med. 218, 3:119-124 (Jan.) 1938.

7. Human Autonomic Pharmacology. XVII. The effect of acetyl-beta-methylcholine chloride on the gall bladder. (P. G. Schube, A. Myerson, M. Ritvo, R. Lambert).

8. Neuroses and neuropsychoses — illustrative case histories (A. Myerson).

9. Minerals in normal and pathologic brain tissue, studied by microincineration and spectroscopy. (L. Alexander, A. Myerson). Arch. Neurol. & Psychiat. 39, 1:131-149 (Jan.) 1938.

10. Ascorbic acid content of blood plasma in alcoholic psychoses. (L. Alexander, M. Pijoan, P. G. Schube, M. Moore).

11. The vascular pattern in various lesions of the human central nervous system. Studies with the benzidine stain. (A.C.P. Campbell, L. Alexander, T. J. Putnam).

12. The cell minerals in tuberous sclerosis and in amaurotic idiocy, studied by microincineration and spectroscopy. Examples of a neoplastic and of a degenerative ganglion cell disease. (L. Alexander, A. Myerson).

13. Ascorbic acid in cerebrospinal fluid. (M. Pijoan, L. Alexander, A. Wilson).

The following papers were read during the past year:

1. Clinical pharmacology of the autonomic nervous system. (Read by A. Myerson before the New Haven Medical Society, New Haven, Conn. Dec. 2, 1936).

2. Autonomic pharmacology of the human being. (Read by A. Myerson, W. Dameshek, J. Loman, M. Rinkel, M. Ritvo and P. G. Schube before the Massachusetts Psychiatric Society, Boston, Mass., Dec. 8, 1936).

3. Local anaphylactic lesions in the brain in guinea-pigs. (Read by L. Alexander and A. C. P. Campbell before the Massachusetts Psychiatric Society. Boston, Mass., Dec. 8, 1936).

4. The interrelationship of mecholy, prostigmin, benzedrine and atropine on human visceral activity. (Read by A. Myerson before the Boston Biological Society, Boston, Mass., Dec. 16, 1936).

5. Gall-bladder studies. (Read by M. Ritvo before the New England Roentgen Ray Society, Boston, Mass., Dec. 18, 1936).

6. Experiments in human autonomic pharmacology. (Read by A. Myerson before the American Association for the advancement of Science, Atlantic City, N. J., Dec. 28, 1936).

7. The neuroses. (Read by A. Myerson before the Jacobi Medical Club. Providence, R. I., Jan. 27, 1937).

8. Autonomic pharmacology of the human being. (Read by A. Myerson and research associates before the Greater Boston Medical Society, Boston, Mass., Feb. 2, 1937).

9. Mental hygiene. (Read by A. Myerson before the American Physical Education Association, Boston, Mass., Feb. 15, 1937).

10. The autonomic pharmacology of the human eye. (Read by A. Myerson before the New England Ophthalmological Association, Boston, Mass., Feb. 16, 1937).

11. The vascular pattern of various lesions of the central nervous system. (Read by A. C. P. Campbell, L. Alexander and T. J. Putnam before the Boston Society of Psychiatry and Neurology, Boston, Mass., Mar. 18, 1937).

12. The autonomic nervous system and the eye. (Read by A. Myerson before the New England Council of Optometry, Boston, Mass., Mar. 30, 1937).

13. The neurone as studied by microincineration. (Read by Alexander, L., before the American Association of Anatomists, Toronto, Canada, Mar. 27, 1937).

14. The pharmacology of the autonomic nervous system, with especial reference to benzedrine and mecholyl. (Read by J. Loman before the Belmont Medical Society, Belmont, Mass., Apr. 2, 1937).

15. Pathology of various diseases of the central nervous system; cerebral arteriosclerosis, syphilis of the central nervous system, chorea, encephalitis, and combined system disease. (Read by L. Alexander before the Merrimac County Medical Society, Concord, N. H., Apr. 7, 1937).

16. Neuropathological aspects of alcoholism. (Read by L. Alexander before the Advisory Committee for the Study of Alcoholism and the Social Service Committee of the Boston City Hospital, Boston, Mass., April 12, 1937).

17. The neuropathology of vitamin deficiency states. (Read by L. Alexander before the Metropolitan State Hospital Staff, Waltham, Mass., April 21, 1937).

18. Eugenics and sterilization. (Read by A. Myerson before a conference of the New York Academy of Medicine and the American Eugenics Society, New York City, Apr. 21, 1937).

19. Neuroses as seen in everyday life. (Read by A. Myerson before the George Bates Society, Tufts Dental School, Boston, Mass., Apr. 29, 1937).

20. The autonomic pharmacology of the eye with especial reference to the Argyll Robertson pupil. (Read by A. Myerson and W. Thau before the Boston Society of Psychiatry and Neurology. Boston, Mass., May 20, 1937).

21. Mineral studies of the brain by the microincineration and spectroscopic methods. (Read by L. Alexander and A. Myerson before the American Neurological Association, Atlantic City, N. J., June 3-5, 1937).

22. Main results of experiments in human autonomic pharmacology. (Read by title by A. Myerson and J. Loman before the American Neurological Association, Atlantic City, N. J., June 3-5, 1937).

23. Human Autonomic pharmacology of the human being. (Read by A. Myerson and associates before the American Medical Association, Atlantic City, N. J., June 10, 1937).

24. (Papers read before Boston State Hospital Staff, Mattapan, Mass.)

Human Autonomic pharmacology — July 8, 1937, by A. Myerson.

Neuropathology — July 15, 1937 by L. Alexander.

Vitamines — July 22, 1937 by M. Pijon.

Dynamics of cranio-vertebral cavity — Aug. 5, 1937, by J. Loman.

Physiology, etiology and treatment of various kinds of enemia — Aug. 26, 1937, by W. Dameshek.

#### PUBLICATIONS BY MEMBERS OF STAFF

1. The colon in mental disease — 1. Dementia Praecox., Amer. Jour. Dig. Dis. and Nutrition, 3:528-533, 1937, — by P. G. Schube.

2. Cerebral Hemorrhages following lumbar spinal puncture. Jour. Nerv. and Ment. Dis., 84:636-659, (Dec.) 1936, by P. G. Schube and N. Raskin.

3. Variations in the blood cholesterol of man over a time period. Jour. Lab. and Clin. Med., 22:280-284 (Dec.) 1936, by P. G. Schube.

4. Blood cholesterol and the manic depressive psychosis. Jour. Lab. and Clin. Med., 22:240-245 (Dec.) 1936.
5. Human Autonomic Pharmacology, IV. The effect of benzedrine sulphate on the gall bladder. New Eng. Jour. Med., 216:694-697, 1937, by P. G. Schube, M. Ritvo, A. Myerson and R. Lambert.
6. The effect of benzedrine sulphate on the hematopoietic system. New Eng. Jour. Med., 216-922-923, 1937, by P. G. Schube, N. Raskin, E. Campbell.
7. Involutional melancholia; Treatment with Theelin. Arch. Neur. and Psychiat., 38:505-512, 1937, by P. G. Schube, M. McManamy, C. E. Trapp, G. F. Houser.
8. The effect of benzedrine sulphate on certain abnormal mental states. Amr. Jour. Psychiat., 94:27-32, 1937, by P. G. Schube, M. C. McManamy, C. E. Trapp, A. Myerson.
9. Human autonomic pharmacology. V. The effect of acetyl-beta-methylcholine (mecholy) on the atonic colon. Radiology, 28:522-558, 1937, by P. G. Schube, M. Ritvo and A. Myerson.
10. The reaction of certain psychotic types to alcohol. Preliminary report. Jour. Nerv. and Mental Diseases, 85:668-688, 1937, by P. G. Schube and C. E. Trapp.

#### FINANCIAL STATEMENT

The appropriation for maintenance for the past year was \$1,272,080.00, plus an amount of \$27,641.13 brought forward from 1936, making a total appropriation \$1,299,721.13. The expenditures amounted to \$1,219,336.87 giving a weekly cost per patient of \$9.9521.

The estimate for maintenance for the coming year, based on a patient population of 2,330, is as follows:

Personal services . . . . .	\$734,180.00
Travel, transportation, and office expenses . . . . .	9,880.00
Food . . . . .	325,558.00
Clothing and materials . . . . .	47,200.00
Religious instruction . . . . .	2,080.00
Furnishings and household supplies . . . . .	68,200.00
Medical and general care. . . . .	27,950.00
Heat and other plant operations . . . . .	121,650.00
Farm . . . . .	5,900.00
Garage and grounds . . . . .	17,300.00
Repairs, ordinary . . . . .	50,950.00
Repairs and renewals . . . . .	43,850.00

\$1,454,698.00

#### RECOMMENDATIONS

The West C, D and Center Office Building, which have been condemned, should be razed, and a new building constructed to take their place. This building, of course, should be of such size as to well accommodate for the patients in these two buildings due to the overcrowding in this institution.

The East A, E and F buildings likewise should be razed and suitable buildings constructed in their place to more adequately house and protect the patients.

Practically all of the older buildings in the institution have inadequate plumbing systems which should be removed and proper toilet and bathing facilities installed.

Due to the fact that all of our electric wires are above ground and are constantly in danger of being broken by winds which naturally would throw our entire hospital into darkness at night, it is necessary to have all the electric wiring in the institution placed underground.

An industrial shop is badly needed by this hospital. Our present industrial work is carried on in the basements of the patients' buildings, which handicaps the work and likewise is a potential fire menace.

A new paint shop is badly needed in this institution. Our present paint shop is located under the laundry and is a very definite fire menace.

The institution is in need of a salvage yard. There is much old lumber and other equipment which it is necessary to stack and store in odd places on the grounds.

If it would be possible to build a salvage yard and have this material all in one place, it would be an enormous economic asset to the institution.

A centrally located auditorium is urgently needed, especially in view of the increase in the number of entertainments for patients.

A tunnel system under Morton Street and connecting individual buildings would greatly increase the efficiency of the hospital.

Although in the past year, a large amount of fill was dumped into the swamp lands on the hospital property, there is still a large amount of swamp land remaining. This swamp breeds enormous numbers of mosquitoes and is exceedingly unhealthy for the patients. The purchase of enough fill to completely eliminate this waste land is highly advisable.

The sewage and surface drainage systems of the buildings and grounds are entirely inadequate for the purposes for which they were designed and in great part are entirely antiquated. In order that proper sanitary precautions and the health of the institution may be maintained, many new sewers should be installed.

Although our laundry is in relatively good condition and new machinery has been purchased, in order to supply the hospital with a minimum amount of clean linen, it is necessary to keep the machinery running an enormous number of hours each week. This naturally causes the equipment to depreciate rapidly, and it would appear that in order to supply the hospital with a reasonable amount of clean linen, that the purchase of additional laundry equipment would be necessary. This equipment would be in the form of pressers, washers, centrifuge driers and dry tumblers. To handle this equipment would, of course, necessitate an addition to the personnel.

In addition to these things, there is one other factor in the care of the patients which is of the utmost importance. There never has been an adequate personnel for reasonable maintenance of the care and treatment of patients. It would appear that, since the recovery and return of patients to the community is the primary function of the hospital, and inasmuch as it is a very definite economic and social asset to the State to accomplish this, the employment of an adequate number of people is imperative.

#### CONCLUSION

I wish to express my gratitude and sincere appreciation to those employees who have been faithful to duty, loyal to the organization and efficient in the performance of the duties devolving upon them during the past year. Also, to all who have contributed in any way to the welfare of the patients I am very grateful. The entire hospital is indebted to the Board of Trustees for their cooperation and helpfulness at all times.

Respectfully submitted,

HAROLD F. NORTON, M.D.,

*Superintendent.*

#### VALUATION

November 30, 1937

##### REAL ESTATE

Land, 224.66 acres . . . . .	\$974,100.00
Buildings and Betterments . . . . .	3,884,018.87
	<b>\$4,858,118.87</b>

##### PERSONAL PROPERTY

Travel, transportation and office expenses . . . . .	—
Food . . . . .	18,947.14
Clothing and materials . . . . .	38,880.91
Furnishings and household supplies . . . . .	312,094.44
Medical and general care . . . . .	19,449.42
Heat and other plant operation . . . . .	7,938.82
Farm . . . . .	11,370.95
Garage and grounds . . . . .	2,763.62
Repairs . . . . .	17,898.45
	<b>\$429,343.75</b>

##### SUMMARY

Real estate . . . . .	\$4,858,118.87
Personal property . . . . .	429,343.75
	<b>\$5,287,462.62</b>

## FINANCIAL STATEMENT

*To the Department of Mental Diseases:*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1937.

STATEMENT OF EARNINGS	
Board of Patients . . . . .	\$77,714.46
Personal Services:	
Reimbursement from Board of Retirement . . . . .	309.11
Sales:	
Travel, transportation and office expenses . . . . .	\$173.35
Food . . . . .	627.29
Furnishings and household supplies . . . . .	96.95
Medical and general care . . . . .	32.00
Garage and grounds . . . . .	14.50
Repairs ordinary . . . . .	1.57
Farm (1 horse, \$1; 2 bridles, \$2; 3 saddles, \$3.) . . . .	6.00
Total Sales . . . . .	\$951.66
Miscellaneous:	
Rents . . . . .	\$8.58
Interest on Patients' Fund . . . . .	77.89
Maintenance — Dr. James V. May . . . . .	200.42
Total Miscellaneous . . . . .	286.89
Total Earnings for the year . . . . .	\$79,262.12
Total Cash receipts reverting and transferred to the State Treasurer . . . . .	\$79,256.12
Accounts receivable outstanding November 30, 1937 . . . . .	\$6.00
Accounts receivable increased . . . . .	\$6.00
MAINTENANCE APPROPRIATION	
Balance from previous year, brought forward . . . . .	\$27,641.13
Appropriation, current year . . . . .	\$1,272,080.00
Total . . . . .	\$1,299,721.13
Expenditures as Follows:	
Personal Services . . . . .	\$632,770.47
Food . . . . .	267,121.83
Medical and general care . . . . .	27,257.46
Religious instruction . . . . .	2,079.98
Farm . . . . .	4,228.76
Heat and other plant operation . . . . .	93,643.01
Travel, transportation and office expenses . . . . .	9,122.56
Garage and grounds (garage \$5,842.14; grounds, \$2,794.22) . . . . .	8,636.36
Clothing and materials . . . . .	45,485.05
Furnishings and household supplies . . . . .	62,560.82
Repairs ordinary . . . . .	36,349.19
Repairs and renewals . . . . .	30,081.38
Total Maintenance Expenditures . . . . .	\$1,219,336.87
Balance of Maintenance Appropriation, November 30, 1937 . . . . .	\$80,384.26
SPECIAL APPROPRIATIONS	
Balance December 1, 1936, brought forward . . . . .	\$74,942.01
Appropriations for current year . . . . .	85,200.00
Total . . . . .	\$160,142.01
Expended during the year (see statement below) . . . . .	\$29,745.18
Deductions made on appropriations . . . . .	* 53,635.14
	83,380.32
Balance November 30, 1937, carried to next year . . . . .	\$76,761.69

APPROPRIATION	Act or Resolve	Total Amount Appropriated	Expended during fiscal year	Total Expended to date	Balance at end of year
Reception, building, equipment	1931-268	\$400,000.00	\$643.90	\$400,000.00	-
Mass. State Project No. M-2 Docket 960, Power Plant		383,503.40	2,337.60	383,503.40	-
Mass. State Project — 29, Docket 1944, Laboratory and Mortuary building		64,489.85	-	64,489.85	-
Mass. State Project No. M-3 Docket 2658, T. B. pavilion.		171,817.88	-	171,817.88	-
Mass. State Project No. M-6 Docket 2065, Three Officers Cottages.		46,954.81	-	46,954.81	-
Mass. State Project No. M-4A and M-5A, Docket 1991, furniture and equipment, M-4 and furn. and equip. M-5		42,404.10	-	42,404.10	-
Iron Fence.	1935-249	13,000.00	-	8,686.91	4,313.09
Mass. State Project No. M-111 Docket 1151, sprinklers		78,694.82	5,442.26	72,155.06	6,539.76
Laundry equipment	1936-304	1,500.00	1,294.38	1,294.38	205.62
Materials for W.P.A. Projects.	1936-304	30,000.00	456.89	29,926.63	73.37
Fire Protection	1937-234	62,200.00	-	-	62,200.00
Renewing and Renovating Plumbing, etc.	1937-234	20,000.00	19,567.58	19,567.58	432.42
Sterilization equipment	1937-234	3,000.00	2.57	2.57	2,997.43
Total . . . . .		\$1,317,564.86	\$29,745.18	\$1,240,803.17	\$76,761.69

## PER CAPITA

During the year the average number of patients has been, 2,356.164.

Total cost of maintenance, \$1,219,336.87.

Equal to a weekly per capita cost of (52 weeks to year), \$9.9521.

Total receipts for the year, \$79,262.12.

Equal to a weekly per capita of, \$.6469.

Total net cost of Maintenance for year, \$1,140,074.75.

Net weekly per capita, \$9.3052.

Respectfully submitted,

ROSE J. SICILIANO.

*Treasurer.*

Financial Statement Verified.  
Approved.

GEORGE G. MURPHY,  
*Comptroller.*

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION PRESCRIBED BY  
THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

(Data correct at end of institution year November 30, 1937)

Date of opening as a hospital for mental diseases, December 11, 1839.

Type of hospital: State:

Hospital plant:

Value of hospital property:	\$ 974,100.00
Real estate, including buildings . . . . .	3,884,018.87
Personal property . . . . .	429,343.75

Total

\$5,287,462 62

Total acreage of hospital property owned, 224.66.

Total acreage under cultivation during 1936, 110.00; 1937, 78.008.

Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	9	4	13	4	—	4
Total physicians . . . . .	10	4	14	4	—	4
Stewards . . . . .	—	—	—	1	—	1
Resident dentists . . . . .	—	—	—	1	—	1
Pharmacists . . . . .	1	—	1	—	—	—
Graduate nurses . . . . .	3	77	80	—	—	—
Other nurses and attendants . . . . .	155	216	371	3	2	5
Occupational therapists . . . . .	1	12	13	—	—	—
Social workers . . . . .	—	4	4	—	1	1
All other officers and employees . . . . .	141	99	240	2	2	4
Total officers and employees . . . . .	311	412	723	11	5	16

Classification by Diagnosis: September 30, 1937

Census of Patient Population at end of year:

	Actually in Hospital			Absent from Hospital but still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane . . . . .	999	1,293	2,292	114	178	292
Alcoholics . . . . .	2	1	3	—	—	—
Total . . . . .	1,001	1,294	2,295	114	178	292
OTHER RACES:						
Insane . . . . .	28	44	72	6	5	11
All other cases . . . . .	1	—	1	1	—	1
Total . . . . .	29	44	73	7	5	12
Grand Total . . . . .	1,030	1,338	2,368	121	183	304

	M.	F.	T.
Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .	78	191	269
Other patients employed in general work of hospital on date of report . . . . .	444	529	973
Average daily number of all patients actually in hospital during year . . . . .	994.76	1,352.04	2,346.80
Voluntary patients admitted during year . . . . .	—	—	—
Persons given advice or treatment in out-patient clinics during year . . . . .	79	95	174



TABLE 2. *Movement of Patient Population for the Year Ended September 30, 1937*

(Data in all of the following tables are based on the Statistical Year, October 1, 1936 to September 30, 1937)

	TOTAL			REGULAR COURT COMMITMENT (INSANE)			OBSERVATION			TEMPORARY CARE		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1936 . . . . .	1,120	1,581	2,701	1,116	1,577	2,693	3	4	7	1	-	1
Admissions during year:												
First admissions . . . . .	343	281	624	239	224	463	43	13	56	61	44	105
Readmissions . . . . .	112	103	215	75	82	157	17	4	21	20	17	37
Total admissions . . . . .	455	384	839	314	306	620	60	17	77	81	61	142
Transfers from other mental hospitals . . . . .	17	26	43	17	26	43	-	-	-	-	-	-
Total received during year . . . . .	472	410	882	331	332	663	60	17	77	81	61	142
Total on books during year . . . . .	1,592	1,991	3,583	1,447	1,909	3,356	63	21	84	82	61	143
Discharged from books during year:												
As recovered . . . . .	62	49	111	50	45	95	5	1	6	7	3	10
As improved . . . . .	78	107	185	66	96	162	4	6	10	8	5	13
As unimproved . . . . .	54	56	110	16	21	37	11	1	12	27	34	61
As without psychosis . . . . .	59	27	86	3	2	5	34	10	44	22	15	37
Total discharged to community . . . . .	253	239	492	135	164	299	54	18	72	64	57	121
Transferred to other mental hospitals . . . . .	26	68	94	26	68	94	-	-	-	-	-	-
Died during year . . . . .	162	163	325	140	158	298	5	2	7	17	3	20
Total discharged, transferred and died during year . . . . .	441	470	911	301	390	691	59	20	79	81	60	141
Patients remaining on books of hospital at end of year:												
In hospital . . . . .	1,030	1,338	2,368	1,025	1,336	2,361	4	1	5	1	1	2
On parole or otherwise absent . . . . .	121	183	304	121	183	304	-	-	-	-	-	-
Total . . . . .	1,151	1,521	2,672	1,146	1,519	2,665	4	1	5	1	1	2

## SUPPLEMENTARY DATA

	Males	Females	Total
Average daily number of patients on books during year . . . . .	1,129.98	1,519.00	2,648.98
Actually in institution during year . . . . .	994.76	1,352.04	2,346.80
In family care . . . . .	-	11.71	11.71
On visit . . . . .	133.14	154.98	288.12
On escape . . . . .	2.08	.27	2.35
Number of patients actually remaining in institution September 30, 1937:			
State . . . . .	956	1,165	2,121
Reimbursing . . . . .	74	173	247
Ex-service patients paid by Federal Government . . . . .	1	1	2
Number of patients in family care September 30, 1937 . . . . .	-	6	6
State . . . . .	-	6	6
Number of non-insane patients in hospital at end of institution year:			
Others . . . . .	3	1	4

TABLE 3. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States <sup>1</sup>	218	153	371	81	72	64	65	58	48
Austria	1	2	3	3	3	3	2	1	1
Canada <sup>2</sup>	25	26	51	30	37	26	23	27	15
Denmark	—	—	—	1	—	—	—	—	—
England	3	4	7	4	8	2	8	10	5
France	—	—	—	2	1	—	1	1	—
Germany	2	2	4	3	3	2	4	4	2
Greece	5	—	5	5	5	5	—	—	—
Holland	—	—	—	1	—	—	1	—	—
Hungary	1	—	1	—	—	—	—	—	—
Ireland	53	50	103	112	113	103	86	90	81
Italy	15	16	31	27	24	24	19	17	17
Norway	2	1	3	1	1	1	2	—	—
Poland	4	2	6	4	4	4	2	2	2
Portugal	1	—	1	2	3	2	—	—	—
Roumania	—	—	—	1	1	1	—	—	—
Russia	4	13	17	9	8	8	14	14	13
Scotland	2	1	3	5	2	2	5	3	3
South America	—	1	1	—	—	—	1	1	1
Sweden	2	2	4	5	5	4	2	3	2
Turkey in Asia	1	1	2	1	1	1	1	1	1
West Indies <sup>3</sup>	1	1	2	2	2	2	1	1	1
Other Countries	2	4	6	5	5	5	2	2	2
Unknown	1	2	3	39	45	38	42	46	41
Total	343	281	624	343	343	297	281	281	235

<sup>1</sup>Persons born in Hawaii, Porto Rico and the Virgin Islands should be recorded as born in the U. S.<sup>2</sup>Includes Newfoundland.<sup>3</sup>Except Cuba, Porto Rico and Virgin Islands.

TABLE 4. Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born

AGE AT ADMI- SSION YEARS	Aggregate			NATIVE BORN										FOREIGN BORN										Nativity Unknown			
	Total			PARENTAGE						Total	TIME IN UNITED STATES BEFORE ADMISSION																
				Foreign		Mixed		Native			Unknown		5-9 years		10-14 years		15 years and over		Unknown								
M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.							
0-14	1	5	6	1	20	21	1	1	2	1	1	2	-	-	-	-	-	-	-	-	-						
15-19	21	10	31	5	26	31	11	2	4	5	12	4	2	2	8	15	25	14	11	25	-						
20-24	12	10	22	4	20	24	2	2	4	5	12	4	2	2	8	17	28	16	16	32	-						
25-29	20	23	43	9	28	37	6	3	3	3	6	5	2	2	5	12	33	23	15	38	-						
30-34	17	11	28	9	9	18	4	2	4	5	3	3	1	1	4	8	25	14	16	30	-						
35-39	22	9	31	13	20	33	8	7	15	2	3	3	1	1	2	7	15	14	11	25	-						
40-44	20	19	39	10	24	34	11	24	4	4	5	9	2	2	8	15	25	14	11	25	-						
45-49	21	18	39	13	24	37	8	11	19	2	3	3	4	5	9	17	28	16	16	32	-						
50-54	17	19	36	11	24	35	11	24	4	4	5	9	2	2	8	15	25	14	11	25	-						
55-59	26	26	52	12	15	27	6	4	10	2	2	4	6	10	1	1	1	14	16	30	-						
60-64	37	34	71	21	17	38	14	6	20	2	2	4	5	4	6	10	1	14	16	30	-						
65-69	47	29	76	24	14	38	9	3	12	1	2	2	5	4	9	9	6	20	13	33	-						
70-74	34	38	72	17	16	33	6	1	7	4	2	6	6	7	13	1	1	16	19	35	-						
75-79	28	23	51	16	11	27	5	6	11	2	2	2	6	3	9	2	2	9	12	21	-						
80-84	16	18	34	5	6	11	3	4	7	1	1	2	1	1	1	1	1	8	9	17	-						
85 and over	4	10	14	4	2	6	2	1	3	1	1	2	1	1	1	1	1	8	9	17	-						
Total	343	281	624	218	153	371	99	60	159	22	22	44	64	48	112	33	23	56	107	114	221	10	11	21	1	2	3

TABLE 5. *Citizenship of First Admissions*

	M.	F.	T.
Citizens by birth . . . . .	218	153	371
Citizens by naturalization . . . . .	54	28	82
Aliens . . . . .	25	40	65
Others . . . . .	1	1	2
Citizenship unknown . . . . .	45	59	104
Total . . . . .	343	281	624

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	TOTAL			With syphilitic meningo-encephalitis			With other forms of syphilis			Alcoholic psychoses			Due to drugs, etc.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	14	12	26	2	2	4	—	—	—	2	—	2	—	—	—
Chinese . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
English . . . . .	6	9	15	—	—	—	—	—	—	1	—	1	—	—	—
French . . . . .	1	1	2	—	1	1	—	—	—	1	—	1	—	—	—
German . . . . .	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—
Greek . . . . .	6	—	6	3	—	3	—	—	—	—	—	—	—	—	—
Hebrew . . . . .	13	22	35	1	—	1	—	—	—	—	—	—	—	—	—
Irish . . . . .	108	90	198	—	—	—	—	—	—	18	7	25	1	—	1
Italian <sup>1</sup> . . . . .	27	20	47	1	—	1	—	—	—	2	1	3	—	—	—
Lithuanian . . . . .	4	2	6	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese . . . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup> . . . . .	4	3	7	—	—	—	—	—	—	—	—	—	—	—	—
Scotch . . . . .	2	2	4	—	—	—	1	—	1	—	—	—	—	—	—
Slavonic <sup>3</sup> . . . . .	5	4	9	—	1	1	—	—	—	—	—	—	—	—	—
Spanish-American . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Turkish . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
West Indian <sup>4</sup> . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Mixed . . . . .	120	96	216	1	1	2	—	—	—	17	5	22	1	1	2
Race unknown . . . . .	26	16	42	—	—	—	—	—	—	4	1	5	—	—	—
Total . . . . .	343	281	624	8	5	13	1	—	1	45	14	59	2	1	3

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Traumatic psychoses			With cerebral arteriosclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Senile psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	—	—	—	3	6	9	—	—	—	—	—	—	1	1	2
Chinese . . . . .	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
English . . . . .	—	—	—	3	5	8	—	—	—	—	—	—	—	—	—
French . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German . . . . .	—	—	—	2	2	4	—	—	—	—	—	—	—	—	—
Greek . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew . . . . .	—	—	—	3	7	10	—	—	—	—	—	—	—	1	1
Irish . . . . .	2	—	2	54	39	93	—	—	—	—	1	1	2	4	6
Italian <sup>1</sup> . . . . .	—	—	—	6	4	10	—	—	—	—	—	—	—	—	—
Lithuanian . . . . .	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup> . . . . .	—	—	—	3	3	6	—	—	—	—	—	—	—	—	—
Scotch . . . . .	—	—	—	—	1	1	—	—	—	—	—	—	—	1	1
Slavonic <sup>3</sup> . . . . .	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Spanish-American . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Indian <sup>4</sup> . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed . . . . .	—	1	2	47	35	82	—	1	1	3	—	3	4	10	14
Race unknown . . . . .	1	—	1	15	11	26	—	—	—	—	—	—	—	1	1
Total . . . . .	4	1	5	140	113	253	—	1	1	3	1	4	7	18	25

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Norwegians, Danes, and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup>Except Cuba.

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Involutional psychoses			Due to other metabolic diseases, etc.			With organic changes of nervous system			Psycho-neuroses			Manic-depressive psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	3	1	4	—	—	—	1	2	3
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	1	1	—	1	1	—	—	—	1	1	2
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	1	3	4	—	1	1	4	7	11
Irish	1	3	4	—	3	3	3	4	7	—	1	1	8	12	20
Italian <sup>1</sup>	—	—	—	—	—	—	1	—	1	—	—	—	4	8	12
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
Spanish-American	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Indian <sup>4</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	1	1	2	1	3	4	5	6	11	1	—	1	9	11	20
Race unknown	—	—	—	—	1	1	—	1	1	—	—	—	—	—	—
Total	2	4	6	1	8	9	14	16	30	1	2	3	30	42	72

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Dementia praecox			Paranoia and paranoid conditions			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Hebrew	1	—	1	—	2	2	—	—	—	—	—	—	—	—	—	3	1	4
Irish	5	3	8	1	6	7	—	1	1	—	—	—	1	—	1	12	6	18
Italian <sup>1</sup>	6	1	7	1	2	3	—	—	—	—	—	—	1	1	—	6	3	9
Lithuanian	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	1	—	1
Portuguese	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Slavonic <sup>3</sup>	2	1	3	—	1	1	—	—	—	—	—	—	—	—	—	1	—	1
Spanish-American	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Turkish	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	1	1
West Indian <sup>4</sup>	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	9	6	15	2	3	5	3	2	5	2	3	5	—	—	—	13	7	20
Race unknown	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	6	—	6
Total	28	12	40	4	16	20	4	3	7	2	3	5	2	1	3	45	20	65

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup>Except Cuba.

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			0-14 years			15-19 years			20-24 years			25-29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	8	5	13	-	-	-	-	-	-	-	-	-	-	-	-
With other forms of syphilis	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	45	14	59	-	-	-	-	-	-	1	1	2	4	-	4
Due to drugs, etc.	2	1	3	-	-	-	-	-	-	-	-	-	-	1	1
Traumatic psychoses	4	1	5	-	-	-	-	-	-	-	-	-	1	-	1
With cerebral arteriosclerosis	140	113	253	-	-	-	-	-	-	-	-	-	-	-	-
With other disturbances of circulation	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epil.)	3	1	4	-	-	-	1	1	2	-	-	-	1	-	1
Senile psychoses	7	18	25	-	-	-	-	-	-	-	-	-	-	-	-
Involuntary psychoses	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	1	8	9	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	14	16	30	-	-	-	1	-	1	-	-	-	-	-	-
Psychoneuroses	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	30	42	72	-	-	-	4	2	6	3	4	7	7	8	15
Dementia praecox	28	12	40	-	-	-	5	1	6	5	2	7	5	1	6
Paranoia and paranoid conditions	4	16	20	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	4	3	7	-	-	-	2	-	2	-	-	-	-	-	-
With mental deficiency	2	3	5	-	-	-	1	-	1	-	1	1	-	-	-
Undiagnosed psychoses	2	1	3	1	-	1	-	-	-	-	-	-	-	-	-
Without psychoses	45	20	65	-	-	-	7	1	8	3	2	5	2	2	4
Total	343	281	624	1	-	1	21	5	26	12	10	22	20	12	32

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued*

PSYCHOSES	30-34 years			35-39 years			40-44 years			45-49 years			50-54 years			55-59 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	-	-	-	1	-	1	3	-	3	2	1	3	-	2	2	2	2	4
With other forms of syphilis	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	2	2	4	4	3	7	5	-	5	5	1	6	8	2	10	9	3	12
Due to drugs, etc.	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-
Traumatic psychoses	-	-	-	1	-	1	-	-	-	-	-	-	1	-	1	-	1	1
With cerebral arteriosclerosis	-	-	-	-	-	-	-	-	-	-	-	-	2	1	3	9	7	16
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
With convulsive disorders (epil.)	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Involuntary psychoses	-	-	-	-	-	-	-	-	-	1	3	4	-	-	-	-	1	1
Due to other metabolic diseases, etc.	-	-	-	-	-	-	1	1	2	-	-	-	-	2	2	-	3	3
With organic changes of nervous system	-	-	-	-	-	-	1	-	1	3	3	6	1	-	1	3	3	6
Psychoneuroses	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	2	3	5	5	3	8	1	9	10	2	4	6	3	4	7	2	2	4
Dementia praecox	5	2	7	3	-	3	2	3	5	2	1	3	-	2	2	-	-	-
Paranoia and paranoid conditions	-	-	-	-	1	1	1	2	3	-	2	2	-	4	4	-	2	2
With psychopathic personality	1	1	2	-	1	1	-	1	1	-	-	-	1	-	1	-	-	-
With mental deficiency	1	-	1	-	-	-	-	-	-	-	1	1	-	1	1	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Without psychoses	5	2	7	8	1	9	5	2	7	4	1	5	1	1	2	1	1	2
Total	17	11	28	22	9	31	20	19	39	21	18	39	17	19	36	26	26	52

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	60-64 years			65-69 years			70-74 years			75-79 years			80-84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other forms of syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	1	2	3	6	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Due to drugs, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	23	21	44	35	17	52	27	29	56	27	18	45	15	12	27	2	8	10
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epil.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	1	1	2	2	5	7	1	5	6	-	1	1	1	4	5	2	2	4
Involutional psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	-	3	3	2	3	5	3	1	4	-	2	2	-	1	1	-	-	-
Psychoneuroses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	1	2	3	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Dementia praecox	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	3	3	6	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Without psychoses	4	2	6	2	1	3	2	2	4	1	1	2	-	1	1	-	-	-
Total	37	34	71	47	29	76	34	38	72	28	23	51	16	18	34	4	10	14

TABLE 8. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

Psychoses	TOTAL			Illiterate			Reads Only		Reads and Writes		Common School		High School		College		Unknown	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	8	5	13	-	1	1	-	1	-	1	4	8	3	-	-	-	-	-
With other forms of syphilis	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	45	14	59	1	1	2	3	3	-	3	30	7	1	8	1	3	1	4
Due to drugs, etc.	2	1	3	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-
Traumatic psychoses	4	1	5	-	-	-	-	-	-	-	3	4	4	1	1	-	-	-
With cerebral arteriosclerosis	140	113	253	12	7	19	1	1	18	7	61	123	20	11	31	29	24	53
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	3	1	4	-	-	-	-	-	-	-	3	1	1	4	-	-	-	-
Senile psychoses	7	18	25	-	1	1	-	-	-	1	4	8	-	-	4	-	3	6
Involuntary psychoses	2	4	6	-	-	-	-	-	-	-	2	6	6	-	-	-	3	3
Due to other metabolic diseases, etc.	1	8	9	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
With organic changes of nervous system	14	16	30	2	-	2	-	2	-	2	7	4	1	2	5	1	7	8
Psychoneuroses	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	30	42	72	1	1	2	3	3	1	2	11	23	13	17	30	4	3	7
Dementia praecox	28	12	40	-	-	-	-	-	-	-	12	4	16	7	22	1	1	4
Paranoia and paranoid conditions	4	16	20	-	2	2	-	-	4	4	2	6	8	2	2	-	2	1
With psychopathic personality	4	3	7	-	-	-	-	-	-	-	4	1	5	1	1	-	1	3
With mental deficiency	2	3	5	-	1	1	-	-	-	-	2	2	-	-	-	-	-	-
Undiagnosed psychoses	2	1	3	-	-	-	-	-	-	-	1	4	-	-	-	-	-	-
Without psychoses	45	20	65	2	2	4	-	-	2	1	33	13	6	2	8	1	1	2
Total	343	281	624	19	16	35	-	4	4	27	180	317	71	55	126	6	40	83





TABLE 10. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Dependent			Marginal			Comfortable			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	8	5	13	1	1	2	7	4	11	-	-	-	-	-	-
With other forms of syphilis . . . . .	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
Alcoholic psychoses . . . . .	45	14	59	7	2	9	35	12	47	-	-	-	3	-	3
Due to drugs, etc. . . . .	2	1	3	-	-	-	2	-	2	-	-	-	-	1	1
Traumatic psychoses . . . . .	4	1	5	-	-	-	4	1	5	-	-	-	-	-	-
With cerebral arteriosclerosis . . . . .	140	113	253	36	20	56	77	67	144	1	1	2	26	25	51
With other disturbances of circulation . . . . .	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . . . .	3	1	4	-	-	-	2	1	3	-	-	-	1	-	1
Senile psychoses . . . . .	7	18	25	4	5	9	2	10	12	-	-	-	1	3	4
Involuntary psychoses . . . . .	2	4	6	2	1	3	-	3	3	-	-	-	-	-	-
Due to other metabolic diseases, etc. . . . .	1	8	9	-	-	-	1	6	7	-	-	-	-	2	2
With organic changes of nervous system . . . . .	14	16	30	3	1	4	8	10	18	-	-	-	3	5	8
Psychoneuroses . . . . .	1	2	3	-	-	-	1	2	3	-	-	-	-	-	-
Manic-depressive psychoses . . . . .	30	42	72	5	4	9	25	37	62	-	1	1	-	-	-
Dementia praecox . . . . .	28	12	40	6	4	10	21	8	29	-	-	-	1	-	1
Paranoia and paranoid conditions . . . . .	4	16	20	1	1	2	2	14	16	-	-	-	1	1	2
With psychopathic personality . . . . .	4	3	7	3	1	4	1	2	3	-	-	-	-	-	-
With mental deficiency . . . . .	2	3	5	-	-	-	2	3	5	-	-	-	-	-	-
Undiagnosed psychoses . . . . .	2	1	3	1	-	1	1	1	2	-	-	-	-	-	-
Without psychoses . . . . .	45	20	65	8	4	12	35	13	48	1	1	2	1	2	3
Total . . . . .	343	281	624	77	44	121	227	195	422	2	3	5	37	39	76

TABLE 11. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Abstinent			Temperate			Intemperate			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	8	5	13	-	1	1	5	-	5	3	3	6	-	1	1
With other forms of syphilis . . . . .	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
Alcoholic psychoses . . . . .	45	14	59	-	-	-	-	-	-	45	14	59	-	-	-
Due to drugs, etc. . . . .	2	1	3	-	-	-	1	-	1	1	1	2	-	-	-
Traumatic psychoses . . . . .	4	1	5	2	-	2	-	-	-	2	1	3	-	-	-
With cerebral arteriosclerosis . . . . .	140	113	253	17	56	73	50	13	63	48	3	51	25	41	66
With other disturbances of circulation . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . . . .	3	1	4	2	1	3	1	-	1	-	-	-	-	-	-
Senile psychoses . . . . .	7	18	25	1	11	12	1	2	3	3	1	4	2	4	6
Involuntary psychoses . . . . .	2	4	6	-	3	3	-	1	1	1	-	1	1	-	1
Due to other metabolic diseases, etc. . . . .	1	8	9	-	6	6	-	-	-	1	1	2	-	1	1
With organic changes of nervous system . . . . .	14	16	30	2	8	10	5	-	5	5	-	5	2	8	10
Psychoneuroses . . . . .	1	2	3	-	1	1	-	1	1	1	-	1	-	-	-
Manic-depressive psychoses . . . . .	30	42	72	9	19	28	10	13	23	11	7	18	-	3	3
Dementia praecox . . . . .	28	12	40	7	10	17	6	2	8	15	-	15	-	-	-
Paranoia and paranoid conditions . . . . .	4	16	20	1	5	6	-	6	6	2	3	5	1	2	3
With psychopathic personality . . . . .	4	3	7	2	1	3	2	-	2	-	2	2	-	-	-
With mental deficiency . . . . .	2	3	5	1	-	1	1	2	3	-	1	1	-	-	-
Undiagnosed psychoses . . . . .	2	1	3	1	-	1	1	-	1	-	-	-	-	1	1
Without psychoses . . . . .	45	20	65	10	8	18	6	2	8	27	10	37	2	-	2
Total . . . . .	343	281	624	55	131	186	90	42	132	165	47	212	33	61	94

TABLE 12. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Single			Married			Widowed			Divorced			Separated			Unknown				
	M.		T.	M.		F.	T.	M.		F.	T.	M.		F.	T.	M.		F.	T.	M.		F.	T.
With syphilitic meningo-encephalitis	8	5	13	-	-	-	-	5	1	6	-	3	3	1	2	2	-	-	-	-	-	-	-
With other forms of syphilis	1	1	2	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	
Alcoholic psychoses	45	14	59	21	3	24	25	12	7	19	10	4	14	-	-	1	1	1	1	1	1	1	
Due to drugs, etc.	2	1	3	1	1	2	3	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-	
Traumatic psychoses	4	1	5	1	1	2	3	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-	
With cerebral arteriosclerosis	140	113	253	31	34	65	95	50	25	75	48	50	98	4	1	5	5	2	7	2	1	3	
With other disturbances of circulation	-	1	1	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	
With convulsive disorders (epilepsy)	3	1	4	3	1	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Senile psychoses	7	18	25	2	8	10	12	-	2	2	3	8	11	1	-	1	-	-	-	-	-	-	
Involuntary psychoses	2	4	6	1	3	4	5	1	1	2	-	2	2	-	2	2	-	-	-	-	-	-	
Due to other metabolic diseases, etc.	1	8	9	-	2	2	3	1	2	3	-	2	2	-	2	2	-	-	-	-	-	-	
With organic changes of nervous system	14	16	30	4	4	8	12	6	5	11	4	6	10	-	-	-	-	-	-	-	-	-	
Psychoneuroses	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Manic-depressive psychoses	30	42	72	18	14	32	52	8	22	30	2	4	6	1	-	1	2	3	-	-	-	-	
Dementia praecox	28	12	40	22	7	29	39	6	3	9	-	1	1	-	1	1	1	1	-	-	-	-	
Paranoia and paranoid conditions	4	16	20	3	3	6	9	1	5	6	-	3	3	-	2	2	-	3	3	-	-	-	
With psychopathic personality	4	3	7	3	2	5	8	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	
With mental deficiency	2	3	5	2	3	5	7	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	
Undiagnosed psychoses	2	1	3	1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Without psychoses	45	20	65	24	1	25	25	14	7	21	1	4	8	1	1	2	2	-	2	-	-	-	
Total	343	281	624	137	93	230	367	110	86	196	72	85	157	9	7	16	12	8	20	3	2	5	







TABLE 13-A. *Mental Disorders of Readmission, 1937, by Sex*

MENTAL DISORDERS	READMISSIONS		
	M.	F.	T.
With syphilitic meningo-encephalitis	1	1	2
With other forms of syphilis	1	—	1
Alcoholic psychoses	15	3	18
Due to drugs, etc.	—	1	1
Traumatic psychoses	1	—	1
With cerebral arteriosclerosis	11	9	20
With convulsive disorders (epilepsy)	4	1	5
Senile psychoses	2	—	2
Involutional psychoses	1	2	3
Due to other metabolic diseases, etc.	1	—	1
With organic changes of nervous system	3	1	4
Psychoneuroses	3	1	4
Manic-depressive psychoses	25	57	82
Dementia praecox	23	7	30
Paranoia and paranoid conditions	1	7	8
With psychopathic personality	2	2	4
With mental deficiency	4	6	10
Without psychoses	14	5	19
Total	112	103	215

TABLE 14. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	TOTAL			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	4	1	5	—	—	—	4	1	5	—	—	—
With other forms of syphilis	—	1	1	—	—	—	—	1	1	—	—	—
With epidemic encephalitis	—	2	2	—	—	—	—	1	1	—	1	1
With other infectious diseases	—	1	1	—	—	—	—	1	1	—	—	—
Alcoholic psychoses	47	9	56	29	5	34	12	3	15	6	1	7
Due to drugs, etc.	1	3	4	—	1	1	—	1	1	1	1	2
Traumatic psychoses	3	1	4	—	—	—	2	—	2	1	1	2
With cerebral arteriosclerosis	28	37	65	4	4	8	9	13	22	15	20	35
With other disturbances of circulation	—	2	2	—	1	1	—	—	—	—	1	1
With convulsive disorders (epilepsy)	5	3	8	1	—	1	2	1	3	2	2	4
Senile psychoses	3	12	15	—	—	—	2	6	8	1	6	7
Due to other metabolic diseases, etc.	1	5	6	—	1	1	—	3	3	1	1	2
With organic changes of nervous system	5	2	7	—	1	1	1	—	1	4	1	5
Psychoneuroses	4	10	14	2	3	5	1	6	7	1	1	2
Manic-depressive psychoses	58	94	152	24	29	53	30	56	86	4	9	13
Dementia praecox	20	3	23	1	1	2	8	—	8	11	2	13
Paranoia and paranoid conditions	2	13	15	—	1	1	—	8	8	2	4	6
With psychopathic personality	9	6	15	1	1	2	4	3	7	4	2	6
With mental deficiency	4	6	10	—	1	1	3	3	6	1	2	3
Undiagnosed psychoses	—	1	1	—	—	—	—	—	—	—	1	1
Without psychoses	59	27	86	—	—	—	—	—	—	—	—	—
Total	253	239	492	62	49	111	78	107	185	54	56	110

TABLE 15. *Hospital Residence during This Admission of Court First Admissions Discharged during 1937*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	4	1	5	.82	.12	.68
With epidemic encephalitis	—	1	1	—	.04	.04
With other infectious diseases	—	1	1	—	.29	.29
Alcoholic psychoses	29	7	36	1.08	3.47	1.53
Due to drugs, etc.	1	1	2	.04	.29	.16
Traumatic psychoses	2	—	2	.29	—	.29
With cerebral arteriosclerosis	26	31	57	.18	.49	.35
With other disturbances of circulation	—	2	2	—	.12	.12
With convulsive disorders (epilepsy)	2	1	3	.04	.04	.04
Senile psychoses	2	10	12	.12	.50	.44
Due to other metabolic diseases, etc.	—	3	3	—	.08	.08
With organic changes of nervous system	3	1	4	.04	.29	.10
Psychoneuroses	3	6	9	.29	.22	.24
Manic-depressive psychoses	35	45	80	1.12	1.09	1.10
Dementia praecox	13	1	14	3.27	.29	3.06
Paranoia and paranoid conditions	2	7	9	.08	.61	.49
With psychopathic personality	7	4	11	1.10	.43	.85
With mental deficiency	3	3	6	2.88	.04	1.45
Undiagnosed psychoses	—	1	1	—	.04	.04
Without psychoses	46	21	67	.07	.05	.06
Total	178	147	325	.80	.71	.76

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Mental Disorders

CAUSES OF DEATH	TOTAL			With syphilitic meningo-encephalitis		With other forms of syphilis		With other infectious diseases		Alcoholic psychoses		Due to drugs, etc.		Traumatic psychoses		With cerebral arterio-sclerosis		With convulsive disorders (epilepsy)			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Infectious and Parasitic Diseases:</i>																					
Erysipelas . . . . .	5	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Tuberculosis of the respiratory system . . . . .	3	3	8	—	—	—	—	—	1	1	1	—	—	—	—	—	1	1	—	—	—
Syphilis (non-nervous forms) . . . . .	—	—	2	2	2	1	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Other infectious diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Cancer and Other Tumors:</i>																					
Cancer and other malignant tumors . . . . .	6	12	18	—	—	—	—	—	—	—	1	1	—	—	—	—	2	4	6	—	—
Tumor (non-cancerous) . . . . .	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases:</i>																					
Diabetes . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diseases of the thyroid and parathyroid glands . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Blood and Blood-Making Organs:</i>																					
Pernicious anemia . . . . .	—	1	1	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
<i>Diseases of the Nervous System and Organs of Special Sense:</i>																					
Meningitis . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral hemorrhage . . . . .	2	5	7	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	4	—	—
Cerebral embolism and thrombosis . . . . .	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—
General paralysis of the insane . . . . .	5	2	7	4	2	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of the nervous system . . . . .	1	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
<i>Diseases of the Circulatory System:</i>																					
Acute endocarditis . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chronic endocarditis (valvular disease) . . . . .	5	5	5	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	4	—	—
Diseases of the myocardium . . . . .	38	18	56	1	—	1	—	—	—	2	—	—	—	—	—	31	8	39	—	—	—
Diseases of the coronary arteries and angina pectoris . . . . .	3	7	10	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	3	—	—
Other diseases of the heart . . . . .	7	12	19	—	—	—	—	—	1	1	—	—	—	—	—	—	5	8	13	—	—
Arteriosclerosis . . . . .	16	24	40	—	—	—	—	—	—	—	—	—	—	—	—	—	12	16	28	—	—
Gangrene . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Respiratory System:</i>																					
Bronchopneumonia (including capillary bronchitis) . . . . .	60	49	109	6	1	7	1	—	1	—	4	2	6	—	2	33	30	63	2	—	2
Lobar pneumonia . . . . .	1	7	8	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—
Pleurisy . . . . .	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1



[illegible]



*Diseases of the Digestive System:*  
 Ulcer of the stomach and duodenum . . .  
 Hernia, intestinal obstruction . . .  
 Biliary calculi and other diseases of the gall bladder and biliary passages . . .  
 Peritonitis . . .  
*Diseases of the Genito-Urinary System:*  
 Nephritis (acute, chronic and unspecified)  
 Other diseases of the kidneys and ureters (puerperal diseases excepted) . . .  
 Diseases of the bladder (tumors excepted) . . .  
*Violent and Accidental Deaths:*  
 Suicide . . .  
 Other external causes . . .

	7	22	29	1	4	5	2	7	9	3	6	9	2	-	2	6	13	19	12	5	17	1	11	12	1	54	years
Total . . . . .	7	22	29	1	4	5	2	7	9	3	6	9	2	-	2	6	13	19	12	5	17	1	11	12	1	54	years

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses

PSYCHOSES	TOTAL			15-19 years			25-29 years			35-39 years			40-44 years			45-49 years			50-54 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	13	3	16	-	-	-	-	-	-	2	-	2	1	-	1	2	1	3	2	1	3
With other forms of syphilis	2	1	3	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
With other infectious diseases	9	5	14	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	3	3	6
Alcoholic psychoses	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Due to drugs, etc.	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses	98	81	179	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	1	2	3
With cerebral arteriosclerosis	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	7	22	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3
Senile psychoses	1	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Involutional psychoses	2	7	9	-	-	-	-	-	-	1	-	1	-	-	-	-	1	1	-	-	-
Due to other metabolic diseases, etc.	3	6	9	-	-	-	-	-	1	-	-	1	-	-	1	-	1	1	2	2	2
With organic changes of nervous system	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses	6	13	19	-	-	-	-	-	-	2	1	2	1	1	1	1	1	1	3	1	1
Manic-depressive psychoses	12	5	17	-	-	-	-	-	3	-	3	1	1	1	1	1	1	4	3	1	4
Dementia praecox	1	11	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	1	1	2	-	-	-	-	-	-	1	-	1	-	-	-	-	1	1	-	-	-
Total	162	163	325	1	-	1	3	4	7	6	1	7	6	2	8	3	10	13	11	10	21



TABLE 18. Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses

PSYCHOSES	TOTAL		Less than 1 month		1-3 months		4-7 months		8-12 months		1-2 years		3-4 years	
	M.	F.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	13	3	1	1	2	2	1	3	1	1	2	1	1	1
With other forms of syphilis	2	3	1	1	2	1	1	2	1	1	2	1	1	1
With other infectious diseases	9	5	3	1	4	1	2	3	1	1	1	1	1	1
Alcoholic psychoses	14	1	1	1	2	1	1	2	1	1	1	1	1	1
Due to drugs, etc.	1	1	1	1	2	1	1	2	1	1	1	1	1	1
Traumatic psychoses	1	2	1	1	2	1	1	2	1	1	1	1	1	1
With cerebral arteriosclerosis	98	81	51	16	67	23	20	43	3	6	9	6	14	20
With convulsive disorders (epilepsy)	2	2	2	2	4	1	1	2	1	1	1	1	1	1
Senile psychoses	7	22	2	2	4	2	3	5	1	2	3	1	1	2
Involuntal psychoses	1	4	1	1	2	1	1	2	1	1	2	1	1	2
Due to other metabolic diseases, etc.	1	2	1	1	2	1	1	2	1	1	2	1	1	2
With organic changes of nervous system	3	6	1	1	2	1	1	2	1	1	2	1	1	2
Psychoneuroses	2	3	1	1	2	1	1	2	1	1	2	1	1	2
Manic-depressive psychoses	6	13	2	3	5	1	2	3	1	1	2	1	1	2
Dementia praecox	12	17	1	1	2	1	1	2	1	1	2	1	1	2
Paranoia and paranoid conditions	1	11	1	1	2	1	1	2	1	1	2	1	1	2
With mental deficiency	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Total	162	163	62	27	89	32	30	62	6	9	15	10	29	39

PSYCHOSES	5-6 years		7-8 years		9-10 years		11-12 years		13-14 years		15-19 years		20 years and over	
	M.	F.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	2	2	1	1	2	1	1	2	1	1	2	1	1	2
With other forms of syphilis	1	1	1	1	2	1	1	2	1	1	2	1	1	2
With other infectious diseases	1	1	1	1	2	1	1	2	1	1	2	1	1	2
Alcoholic psychoses	1	1	1	1	2	1	1	2	1	1	2	1	1	2
Due to drugs, etc.	1	1	1	1	2	1	1	2	1	1	2	1	1	2
Traumatic psychoses	2	1	3	1	4	2	1	3	1	1	2	1	1	2
With cerebral arteriosclerosis	1	1	2	1	3	1	1	2	1	1	2	1	1	2
With convulsive disorders (epilepsy)	1	1	2	1	3	1	1	2	1	1	2	1	1	2
Senile psychoses	1	1	2	1	3	1	1	2	1	1	2	1	1	2
Involuntal psychoses	1	1	2	1	3	1	1	2	1	1	2	1	1	2
Due to other metabolic diseases, etc.	1	1	2	1	3	1	1	2	1	1	2	1	1	2
With organic changes of nervous system	1	1	2	1	3	1	1	2	1	1	2	1	1	2
Psychoneuroses	1	1	2	1	3	1	1	2	1	1	2	1	1	2
Manic-depressive psychoses	3	3	1	1	2	1	1	2	1	1	2	1	1	2
Dementia praecox	1	1	1	1	2	1	1	2	1	1	2	1	1	2
Paranoia and paranoid conditions	1	1	1	1	2	1	1	2	1	1	2	1	1	2
With mental deficiency	1	1	1	1	2	1	1	2	1	1	2	1	1	2
Total	10	3	13	3	16	5	3	8	2	4	6	6	5	11

TABLE 19. *Average Length of Hospital Residence during the Present Admission of All First Admissions in Residence on September 30, 1937*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	34	16	50	6.51	4.23	5.78
With other forms of syphilis . . . . .	2	2	4	10.00	13.50	11.70
With other infectious diseases . . . . .	—	2	2	—	2.00	2.00
Alcoholic psychoses . . . . .	87	32	119	7.94	9.05	8.24
Due to drugs, etc. . . . .	1	1	2	1.50	.44	.97
Traumatic psychoses . . . . .	3	—	3	13.48	—	13.48
With cerebral arteriosclerosis . . . . .	120	113	233	2.29	1.48	2.49
With other disturbances of circulation . . . . .	—	1	1	—	1.50	1.50
With convulsive disorders (epilepsy) . . . . .	7	9	16	5.91	9.16	7.74
Senile psychoses . . . . .	10	40	50	5.19	5.02	5.05
Involuntary psychoses . . . . .	6	13	19	4.81	8.33	7.22
Due to other metabolic diseases, etc. . . . .	3	4	7	2.14	1.72	1.90
With organic changes of nervous system . . . . .	15	10	25	3.46	1.25	2.58
Psychoneuroses . . . . .	4	2	6	4.50	2.50	3.83
Manic-depressive psychoses . . . . .	86	180	266	5.28	6.57	6.16
Dementia praecox . . . . .	171	203	374	14.56	16.58	15.65
Paranoia and paranoid conditions . . . . .	34	127	161	6.02	7.27	7.01
With psychopathic personality . . . . .	2	6	8	.44	8.65	6.60
With mental deficiency . . . . .	35	38	73	14.72	10.73	14.01
Without psychoses . . . . .	2	1	3	.44	.44	.44
Total . . . . .	622	800	1,422	8.24	8.82	8.57

TABLE 19A. *Average Length of Hospital Residence during the Present Admission of All Readmissions in Residence on September 30, 1937*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	13	8	21	5.26	4.37	4.92
With other forms of syphilis . . . . .	2	1	3	4.00	12.50	6.83
With epidemic encephalitis . . . . .	2	—	2	.50	—	.50
Alcoholic psychoses . . . . .	43	9	52	10.15	8.72	9.90
Due to drugs, etc. . . . .	1	—	1	7.50	—	7.50
Traumatic psychoses . . . . .	5	—	5	16.10	—	16.10
With cerebral arteriosclerosis . . . . .	11	17	28	2.59	3.60	3.21
With convulsive disorders (epilepsy) . . . . .	14	12	26	7.78	7.33	7.57
Senile psychoses . . . . .	2	4	6	2.00	9.25	6.83
Involuntary psychoses . . . . .	2	12	14	2.00	10.75	9.50
Due to other metabolic diseases, etc. . . . .	1	4	5	7.50	8.75	8.50
With organic changes of nervous system . . . . .	7	1	8	4.50	.50	4.00
Psychoneuroses . . . . .	4	—	4	1.75	—	1.75
Manic-depressive psychoses . . . . .	85	155	240	6.28	6.95	6.71
Dementia praecox . . . . .	158	209	367	14.39	14.30	14.35
Paranoia and paranoid conditions . . . . .	11	48	59	7.40	8.75	8.50
With psychopathic personality . . . . .	6	11	17	5.66	10.13	8.55
With mental deficiency . . . . .	40	47	87	8.27	7.94	8.09
Without psychoses . . . . .	1	—	1	.50	—	.50
Total . . . . .	408	538	946	9.92	10.13	10.04

TABLE 20. *Family Care Statistics for Year Ended September 30, 1937*

	Males	Females	Total
Remaining in Family Care September 30, 1936 . . . . .	—	15	15
Admitted to Family Care during the Year . . . . .	—	11	11
Whole Number of Cases within the Year . . . . .	—	26	26
Discharged from Family Care within the Year . . . . .	—	20	20
Discharged Outright from Family Care . . . . .	—	4	4
Returned to Institution . . . . .	—	16	16
Remaining in Family Care September 30, 1937 . . . . .	—	6	6
Average Daily Number in Family Care During Year . . . . .	—	11.71	11.71
Supported by State . . . . .	—	11.71	11.71

# The Commonwealth of Massachusetts

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## ANNUAL REPORT

OF THE

## TRUSTEES

OF THE

# BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1938

THE NINETY-EIGHTH ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION ON ADMINISTRATION AND FINANCE  
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OCCUPATIONAL PRINTING PLANT  
DEPARTMENT OF MENTAL HEALTH  
GARDNER STATE HOSPITAL  
EAST GARDNER, MASS

BOSTON STATE HOSPITAL  
(Post Office Address: Dorchester Center, Mass.)

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## TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council:*

The Board of Trustees of the Boston State Hospital respectfully submit the Annual Report for the year 1938. The membership of the Board of Trustees of the institution was entirely changed on February 11, 1937, by act of Governor Charles F. Hurley, because of unsatisfactory conditions which were reported at that time to prevail at the hospital. The present Board, therefore, has been exercising its supervisory control for a period of less than two years.

During this relatively brief time, there has been an honest and thorough examination, on the part of the Trustees, of every department of the institution; administrative, domestic, medical, and the Trustees are happy to report that such conditions as were open to reasonable adverse criticism have been either eliminated or improved, as circumstances dictated.

The hospital is now ably administered by an intelligent and an alert staff under the direction of Dr. Harold F. Norton, who, since his appointment in 1937 as Superintendent has shown in his understanding of the hospital problems, a competence which the Trustees are glad to acknowledge and to make a matter of record.

Both the Board of Trustees and the Superintendent are aware that the effective management of such a big institution is a continuing process toward reasonable and acceptable results in the public service. This conception of our joint responsibility, we are pleased to report, seems to be shared by those in charge of the separate and respective branches of the hospital service. The Trustees find no small satisfaction in commending the loyalty and painstaking efforts of the entire personnel of the hospital, and the sympathetic and helpful cooperation, as well, of the Commissioner of the Department of Mental Health, Dr. Clifton T. Perkins.

The report which follows of Dr. Harold F. Norton, Superintendent, carries a more detailed account of the hospital and the extent and character of its present work. The Trustees are in accord with the recommendations made therein and naturally would appreciate the granting of such additional appropriations as will make possible the further extension of the usefulness of the hospital.

Respectfully submitted,

J. A. GREENE, M.D.

THOMAS D. RUSSO

ALEXANDER M. SULLIVAN

THOMAS J. SCANLAN, M.D.

HARRY B. BERMAN

GERTRUDE A. MACDONNELL

JOSEPHINE E. THURLOW

## REPORT OF THE SUPERINTENDENT

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1938 and the fiscal year ending November 30, 1938. Founded by the City of Boston in 1839, this marks the completion of the ninety-ninth year of this institution as a hospital for mental diseases, and the thirtieth year of its history as a state institution.

## MOVEMENT OF THE POPULATION

The number of patients on our books September 30, 1937, was 2,672. There were admitted during the year 946, making a total of 3,618 under care and treatment. There were discharged to the community 654 and transferred to other mental hospitals 70. Two hundred and forty-one deaths occurred leaving 2,894 patients on the books of this hospital on September 30, 1938, of which 2,386 were actually in the hospital and 267 on visit or otherwise absent.

## PERSONNEL

During the year the following changes were made in the Staff of the hospital:

Norris B. Flanagan, M.D., appointed Assistant Physician March 21, 1937, was promoted to Senior Physician, June 16, 1938.

Joseph P. Thornton, M.D., appointed Assistant Physician June 1, 1937, was promoted to Senior Physician, June 16, 1938.

Florence A. Beaulieu, M.D., Senior Physician, left the service December 16, 1937.

Edmund M. Pease, M.D., Senior Physician, left the service March 5, 1938.

Volta R. Hall, Jr., M.D., Assistant Physician, left the service January 1, 1938.

Owen C. Mullaney, M.D., Assistant Physician, was granted a leave of absence January 3, 1938.

Charles S. Mullin, Jr., M.D., of Cambridge, was appointed Assistant Physician January 19, 1938.

Louis S. Chase, M.D., of Brookline, was appointed temporary Assistant Physician May 23, 1938. His appointment was made permanent June 15, 1938.

Daniel J. Sullivan, M.D., of Trenton, New Jersey, formerly Associate Medical Officer at the Veterans' Administration Hospital, Bedford, Massachusetts, was appointed Senior Physician February 1, 1938.

Joseph F. Dinan, M.D., of Wakefield, Massachusetts, was appointed temporary Assistant Physician January 6, 1938, and resigned April 23, 1938.

Peter P. Gudas, M.D., of West Roxbury, was appointed Assistant Physician June 24, 1938.

John Ficzichy, Jr., M.D., of Hyde Park, Massachusetts, was appointed temporary Assistant Physician July 4, 1938.

John F. Sullivan, M.D., of Dorchester, Massachusetts, was appointed Assistant Physician November 7, 1938.

One position, Senior Physician, was abolished and the position, Director of Clinical Psychiatry, added to the quota. On November 28, 1938, John J. Slattery, M.D., of Greenfield, Massachusetts, was appointed to the position. He had been a member of the Staff of the Medfield State Hospital for eight years prior to his appointment here.

Kaen A. Noonan, D.M.D., of Boston, Massachusetts, was appointed Dentist January 24, 1938, to fill the vacancy caused by the resignation of George S. Raleigh, D.M.D., in October 1937.

The following changes occurred in the Administrative personnel: Francis E. Burns, Acting Steward, resigned March 19, 1938. Charles A. Perry, of Lawrence, Massachusetts, formerly Assistant Steward at the State Farm, Bridgewater, Massachusetts, was appointed State Hospital Steward May 23, 1938.

#### PSYCHIATRIC SERVICE

Staff meetings were held four times weekly from 11:00 a.m. to 12:30 p.m. on Mondays, Tuesdays, Wednesdays and Saturdays. In these meetings special cases were studied from psychopathological and treatment points of view. Pathological conferences were held each week at which time cases autopsied the previous week were presented. Once each month a special pathological conference was held at which time some case or group of cases was presented because of the particular pathology they exhibited.

Every Wednesday at noon, a Staff luncheon was held at which time a prominent physician not associated with the hospital spoke.

Every Tuesday evening the hospital Medical Journal Club meets. At each of these meetings one of the Staff Physicians presides and presents in concise form, current periodical literature.

#### MEDICAL SERVICE

The medical services of the hospital have been consolidated into one unit. This unit handles both male and female physically ill patients. All surgery has likewise been consolidated and centered in this building. The operating room has been completely equipped for this purpose.

Every patient in the institution who becomes sufficiently ill to need bed care is transferred to this service and properly cared for until well enough to be returned to his original service.

The medical care of patients having tuberculosis has been confined to a building which has been especially renovated for that purpose, the O Building. This unit has been fully equipped and makes an excellent unit for this purpose.

In the treatment of certain patients, namely, Dementia Praecox and Manic-Depressive Psychoses — metrazol and hematophyrin have been utilized.

#### DENTAL REPORT

The dental activities at the hospital have been conducted under the direction of Dr. Kaen A. Noonan. A program of prophylaxis has been pursued along with the various assignments of a reparative nature, in recognition of the close relationship existing between the manifestations of oral lesions and the general systemic condition.

When such lesions have been determined to be of nutritional or other extra-oral origin, the cooperation of the physicians in the treatment of these patients has been productive of beneficial results.

During the year, the following work has been performed: Treatments, 473; examinations, 1603; extractions, 1084; prophylaxis, 624. Fillings (862):—Amalgams, 712; cements, 58; syn. porcelain, 92. Restorations (153):—Dentures, 44; partials, 33; re-makes, 28; repairs, 48.

#### GENERAL OPERATIONS

The A Building was painted inside and out. Linoleum, locks, glass, etc. were repaired. Two fire hose cabinets were installed in cafeteria.

The B Building was painted inside and out. Guard screens were put on the roof, outside window guards were installed on B9, and screen doors on day halls of B1 and 2. A mattress sterilizer was installed in old boiler room. The industrial departments were moved from basement to Industrial Building established in old West Center Office. Many partitions have been removed and the basement cleaned. General repairs were made on linoleum, locks, glass, etc. Screens were repaired and painted.

The C Building was painted and new fire escapes were installed. It is in bad physical condition inside and out. General repairs were made on locks, glass, sash cords, etc. W.P.A. masons and painters have worked on this building.

The D Building received general repairs to locks, glass, sash cords, etc. Fire escapes have been installed.

The E Cottage has been painted inside. A retaining wall has been built outside at basement steps and new treads placed on the basement steps inside. General repairs were made on locks, glass, window cords, etc.

The F Cottage has been painted inside and general repairs made on locks, glass, window cords, etc.

In the G Building chair rails were put in the four day halls. General repairs were made on linoleum, locks and glass, etc.

In the H Building the day halls, corridors, toilets and dining rooms have been painted; two porches were installed and general repairs were made on doors, locks, glass, window cords, etc. The surgical beds were equipped with Bradford frames.

The I Building was painted inside and general repairs were made on doors, locks, glass, window cords, etc. A fence was installed in the rear of the building.

The J Building was painted inside and equipped with new window and door screens. General repairs were made on locks, glass, window cords, etc.

In the K Building the first floor has been made into a ward. General repairs were made on locks and glass, broken doors, etc.

In the Reception Building the front entrance corridor has been painted. General repairs have been made on glass, locks, plaster, linoleum, etc. Fences were installed in rear of building.

The West Kitchen & Dining Rooms were painted inside and out and a patient's cafeteria installed. General repairs were made on locks, glass, window cords, etc.; a partition was built around the dish-washing room.

The Club House kitchen and entrance have been painted. A storage shed has been built in rear. One showcase was repaired; and a showcase has been built for food. General repairs were made on locks, glass, window cords and furniture, etc.

In the West Male Home general repairs were made on locks, glass, broken doors, etc.

In the Administration Building general repairs were made on locks, glass, broken doors, etc.

In the Laboratory 50 cages were made for animals; tables and racks have been constructed, and doors repaired.

The L Building was painted inside. General repairs were made on locks, glass, broken doors, etc.

The M Building was painted inside; the floors were painted also. General repairs were made on locks, glass, window cords, etc. A new fire escape has been installed.

The N Building was painted inside; the floors were sanded preliminary to installing asphalt tile. General repairs were made on locks, glass, window cords, etc.

The O Building was painted inside; the floors were painted also. Doors removed and wood-work repaired. General repairs were made on locks, window cords, glass, etc.

The P Building was painted inside and new fire escapes installed. Asphalt tile was laid on P1. General repairs were made on locks, window cords, glass, etc. The double windows removed from building and the front entrance cleaned.

The Q Building was painted inside. A new roof was placed on the corridor between the Q and P buildings. General repairs were made on glass, locks, window cords, etc.

The R Building was painted inside and the metal balcony on the attic removed. General repairs were made on locks, glass, window cords, fire escapes, etc.

The East kitchen and dining rooms were painted inside. A new cafeteria was installed, also, walls of cement were put around the kettles. An electric elevator was installed, and half of the lower floor was made into a storeroom. General repairs were made on locks, glass, window cords, doors, etc.

In the Chapel two Communion rails and one Confessional were installed. The building was equipped with fire escapes.

In the Nurses Homes general repairs were made on locks, glass, window cords, etc.

In the Laundry new trucks were added. General repairs were made on glass, doors, window cords, etc.

The Power House doors and locks were repaired.

Bread and pie boxes were made and repaired for the Bakery. General repairs were made on locks, glass, doors, etc.

About 1,000 pieces of furniture were repaired and 4 dozen coat racks were made. Three kitchen cabinets were made for doctors' apartments and about 20 dozen curtain rods and fixtures installed in different buildings. Ninety boxes were made for storage of checks in the Administration building. Twelve frames were made for bedside screens.

The W.P.A. Projects for cleaning and painting were of great value to the institution.

#### OCCUPATIONAL AND RECREATIONAL THERAPY

There have been several changes in the organization of the Occupational Therapy Department. In February, 1938, an Industrial Therapy program was set up and patients placed in the various hospital industries by prescription on a basis of the individual patient's therapeutic needs. The prescription placing a patient in a job is signed by the doctor in charge of the patient and permits assignment to a specific job. The work opportunities throughout the hospital have been grouped and analyzed by the Occupational Therapy Department. The analyses of the various jobs have been done from the standpoint of what is required of the patient in the way of concentration, coordination, initiative, physical strength and also from the point of view of therapeutic factors inherent in the job, such as training in work habits and socialization potentialities. The employee who has the supervision of the working patient is given enough information about him so that he can intelligently and sympathetically help him in his work and hospital adjustment. One Occupational Therapist who has special training in this work has charge of patient placement; all placements are made through the Occupational Therapy Department with the prescriptions signed by the physicians in charge who, through the job analyses, know the requirements of the different work situations. Since March 1, there have been 694 patients placed in jobs; 445 adjustments were made on patients already working but due to circumstances arising it was felt by the doctors that changes and adjustments were indicated for the benefit of the patient.

During the spring and summer months, when the weather permitted, all Occupational Therapy work with the exception of the weaving and painting projects, has been conducted on the grounds, East and West. When the patients were indoors, work has been done on the wards. During the year 10,637 garments were mended; 13,761 pieces of patients' clothing marked; 1,350 key cords made for use of employees and 6,544 miscellaneous articles, ranging from wash cloths and bed slippers to curtains and rugs were made by patients under the supervision of the Occupational Therapy Department.

There were two painting projects, i.e., furniture and beds. During the year, 6,669 pieces of furniture were painted, refinished and sent to the wards, and 1,432 beds stripped and painted, assembled and sent out. In the spring, the patients, under Occupational Therapy supervision painted 935 pieces of furniture for the field, i.e., tables, benches and chairs.

During the winter months gymnasium classes were held in the East Group for patients whom the doctors thought needed some remedial and corrective work. In the West Group each building has had one afternoon or morning with a recreational worker devoted to recreation and games with the patients. The games, cards, dominoes and checkers were left on all wards for use of the patients at all times. Games and equipment that could be made by the Occupational Therapy Department have been made by the male patients.

During the Spring and Summer, all recreational activity was held on the field, East and West; volley-ball, soft ball, croquet and games with dominoes, checkers and cards

were played with the nurses and Occupational Therapy workers helping to organize the games.

Field Days were organized by the Occupational Therapy Department in May, June, July and September, with competitive races and games. The Occupational Therapists have assisted also, at the dances, movies and other entertainments for the patients throughout the year.

In February, 1938, there were several changes in the personnel; a new director was appointed and 2 workers previously carried as industrial workers under the Matron were added to the department. The personnel consists now of one director (graduate), one physical education worker (graduate), and 11 therapists (three graduates).

#### HYDROTHERAPY REPORT

The number of patients given tonic treatments was 61 and the number of treatments given was 6,242.

The number of patients in continuous baths — 228. The number of baths — 8,147, and the number of hours — 54,859.27.

The number of patients in wet sheet packs — 282. The number of packs — 24,269, and the number of hours of packs — 91,708.20.

The number of patients receiving massotherapy — 3. The number of treatments — 28.

During the year, Miss Mary Bresnahan, R.N., in charge of the department, gave a course of nine lectures to the Senior Psychiatric Nurses.

A course of six lectures was given to the hydrotherapists by Dr. Rebekah Wright, Hydrotherapist for the Department of Mental Health. A course of four lectures was given to Hydrotherapist Aids by Dr. Wright. There were 6 hydrotherapists who received 16 pack lessons, each lesson averaging 1 hour and 15 minutes, a total of 20 hours.

#### ENGINEERING DEPARTMENT

There were 2 new drinking fountains installed in the recreation field for benefit of patients in warm weather. An electric heater was installed in the watchman's house at the main gate and gate post lights were wired and installed at the main gate and at the East group gate. The street lights in the East group were wired and lighted. The burner rings were replaced in all four boilers as were the worn pulverizer parts. The steam piping to the Laundry was changed and added to, to improve the quality of the work. New service wires were installed to the farmhouse and the barn. New supports were installed under the exhaust pipes from the turbines in the Powerhouse. Steam leaks in the mains in front of cottage No. 2 and West E cottage were repaired. A new patients' cafeteria was installed in West Patients' dining room, new stock and slop sink in the East L building, new electric fixtures in East O,P,Q, buildings, and in West A, B, H, F, G buildings.

The following improvements and installations of apparatus, etc., were made:—  
 1. A new cafeteria in East Patients' dining room, thereby improving the food service.  
 2. New switch cabinet and wiring for lighting service. 3. An electric food elevator in East Kitchen for speed in delivery. 4. New return lines in East M building to improve heating conditions. 5. Fifteen feet of new return pipe in West H building and 4 radiators in West B 1 and 2. 6. New heating coil, also made, East O building with new return line. 7. A new sterilizer in West B building for mattress hair. 8. Three radiators in East M day hall. 9. Three hundred feet of 6-inch steam main and 300 feet of 2½-inch return line in main loop behind superintendent's house; 250 feet of 2½-inch return line at West kitchen, 60 feet of 2½-inch return line at the Reception building, and 6 feet of 12-inch steam line in roadway outside of Power House in East Group. 10. New ice plant in the basement of West Kitchen. 11. Return lines in West A basement. 12. New steam kettles in bakery, East O and West A buildings. 13. New heating system for animal cages in Laboratory. 14. New slop sinks and 4 showers in East O building. 15. New electric range in physicians' quarters in East Staff house. 16. New toilet and wash bowl in East Kitchen basement. 17. Two fire hydrants relocated to provide for new road near West C and D buildings.

#### SOCIAL SERVICE

The work of the Social Service Department has continued under the supervision of Mrs. Lillian S. Irvine, Head Social Worker. Miss Esther Coleman and Miss Martha Wolk have continued as assistant psychiatric social workers. There have been two

changes in the staff of five workers. Mrs. Alice M. Brearton resigned, and Mrs. Isabel Coolidge Cunningham was appointed to the position of psychiatric social worker on January 31, 1938. Mrs. Cunningham is a Radcliffe graduate and studied a year at Simmons College. She served with the Red Cross during the World War and has had valuable experience in the Judge Baker Guidance Center, the Massachusetts General Hospital and the Boston Psychopathic Hospital. Miss Martha Grinnell was given a provisional appointment as assistant psychiatric social worker following the resignation of Mrs. Phyllis Foster. Miss Mary M. Foley and Miss Kathleen F. Geaney are volunteer workers in the department. They were both graduated from Emmanuel College in June, 1938, where they studied social service. They are here for practical training and experience.

During the year the Social Service Department has continued to take medical histories on all patients admitted to the hospital, and has made complete social investigation in all cases admitted on Sections 77, 100, 104 and 105. One hundred and one cases were investigated under Section 77, 44 under Section 100, 5 under Section 104, and 3 under Section 105 of Chapter 123 of the General Laws.

At the request of the South Boston Juvenile Court, juvenile delinquent investigations were made on nine girls and 18 boys. This investigation included work with the families, the social agencies who know the child and later conferences with community social workers, the hospital psychiatrist, the court probation officers, the clergy and others interested in the child.

The Social Service Department has assisted in attempting to locate relatives for burial responsibility and permission for autopsies in cases where the relatives were unknown to the hospital.

Two patients are in Family Care in the community. Their board is not paid by the hospital. Some of the patients who are on trial visit from the hospital have been visited.

The Social Service Department, at the physicians' request, makes special investigations of the statements of patients or others, and also pre-parole investigations.

Obtaining permits, taking Staff notes, and giving patients personal service such as taking them shopping or buying their clothes, are part of the duties of the Social Service Department.

The Department feels that its work would be more constructive and effective if there were two more workers.

#### PATHOLOGICAL LABORATORY

The pathological laboratory continues under the supervision of Dr. Naomi Raskin. During the year the following work was done:

Autopsies . . . . .	91
Bacterial slide examinations . . . . .	439
Blood Counts:	
Red . . . . .	1,180
White . . . . .	1,216
Differential . . . . .	1,216
Hemaglobin estimations . . . . .	1,180
Reticulocyte . . . . .	8
Blood grouping and matching . . . . .	3
Blood calcium . . . . .	1
Bleeding and coagulation time . . . . .	1
Blood cultures . . . . .	11
Blood sugars . . . . .	140
Bromides . . . . .	4
Chlorides . . . . .	6
Cholesterols . . . . .	12
Cultures from wound . . . . .	3
Icteric Index . . . . .	16
Gastric content examination . . . . .	6
Sedimentation rates . . . . .	3
Sputum examinations . . . . .	462
Stool examinations . . . . .	26
Spinal fluid examinations . . . . .	311

Throat cultures . . . . .	19
Tissue:	
Celloidin . . . . .	1,035
Frozen . . . . .	430
Paraffin . . . . .	5,515

The autopsy percentage for the year was 38%.

#### X-RAY DEPARTMENT

The work of the x-ray department has been carried on during the year by Mrs. Gertrude Moses. During the year 1,578 x-ray examinations and 20 fleuroscopic examinations were made; 1,103 patients and 284 employees were x-rayed.

#### SCHOOL OF NURSING

Miss Mary Alice McMahon, R.N., Principal of the School of Nursing, has had charge of the nursing service of the hospital. The following is a census of the nursing service for the year ending September 30, 1938:

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Superintendent of Nurses . . . . .	0	1	1
Assistant Superintendent of Nurses . . . . .	0	1	1
Supervisors — Chief Hospital . . . . .	0	2	2
Supervisors — Assistant (Days) . . . . .	1	10	11
Supervisors — Assistant (Nights) . . . . .	5	10	15
Head Nurses — Registered . . . . .	0	24	24
Head Nurses — Graduate . . . . .	0	2	2
Hydrotherapists . . . . .	4	6	10
Barbers . . . . .	4	0	4
Charge Attendant Nurses . . . . .	17	14	31
Attendant Nurses . . . . .	116	196	312
<i>Psychiatric Nurses:</i>			
Graduate Head Psychiatric Nurses . . . . .	0	17	17
Graduate Psychiatric Nurses . . . . .	0	2	2
Senior Psychiatric Nurses . . . . .	0	12	12
Number graduated from Course . . . . .	0	3	3
<i>Employed During Year:</i>			
Registered Nurses . . . . .	0	55	55
Attendant Nurses . . . . .	110	195	305
<i>Left During Year:</i>			
Assistant Superintendent of Nurses . . . . .	0	1	1
Registered Nurses . . . . .	1	48	49
Graduate Psychiatric Nurses . . . . .	0	12	12
Student Psychiatric Nurses . . . . .	0	11	11
Hydrotherapists . . . . .	2	1	3
Attendant Nurses . . . . .	132	174	306
<i>Classes:</i>			
Classes for Registered Nurses . . . . .	0	35	35
Classes for Psychiatric Nurses . . . . .	0	112	112
Number of Psychiatric Student Nurses . . . . .	0	13	13
Number of Attendant Nurses Taught . . . . .	248	380	628
Classes for Attendant Nurses . . . . .	53	74	127

#### RESEARCH LABORATORY

The main fields of research of this division during the past year were the following:

- I. Human autonomic and allied pharmacology
- II. General neuropathological studies
- III. Vitamin deficiencies and the nervous system
- IV. Sex hormone studies
- V. The "total push" method
- VI. Organization activities.

#### 1. *Human autonomic and allied pharmacology:*

The work on autonomic pharmacology has amplified and made more specific certain aspects of the work reported in a preliminary way in the last report. The general working hypothesis has been that the nervous system manufactures chemical substances which operate on the viscera in a way resembling the effects of mental and emotional states.

Drugs have been utilized to imitate, insofar as possible, the activity of the chemical substances manufactured by the nervous system upon viscera, thus the term "human autonomic pharmacology".

A. *Working hypothesis* (see last year's report).

B. We have finished a very interesting study on the effects of the four drugs used; mecholyl (acetyl-beta-methylcholine chloride), the parasympathetic drug; benzedrine sulfate (benzylmethyl carbamine or beta-phenyl-isopropylamine), the adrenergic substance; atropine sulfate (sulfate of tropeic ester of tropine), paralyzer of parasympathetic activity and synergist of benzedrine sulfate; and prostigmin (dimethyl-carbamic ester of m-Oxyphenyl-trimethylammonium methylsulfate), which inhibits the esterases and thus enhances the effects of mecholyl and the parasympathetic nervous system.

C. *Genitourinary tract*:

1. General effects: (a) The genitourinary tract from the kidney to the bladder is constricted by the use of mecholyl, prostigmin and by their combined use. (b) Benzedrine sulfate dilates the entire genitourinary tract from kidney to bladder in a remarkable manner, having thus the same general effects upon this set of structures that it has upon the gastrointestinal tract. (c) Atropine has similar effects to that of benzedrine sulfate but in much less marked degree, while (d) the use of the combined drugs brings about marked dilatation of the genitourinary tract.

2. *From the clinical angle* this has been useful in several varieties of patients especially in respect to the contracted bladder following nervous diseases and nasal infection. In these conditions benzedrine sulfate dilates the bladder relieving the symptoms quite considerably.

3. We believe that an important contribution has been made to the physiology of the genitourinary tract and one which is already having clinical value.

D. *Sleep*: The relationship of the sleeping and waking process to mental disease and especially to the neuroses and depressions is one of fundamental importance. In the neuroses especially, the power to rest and recuperate and the power to get started in activity are fundamentally impaired. This, in the director's belief, is an essential defect of most of the neuroses, no matter how produced.

1. The remarkable effects of benzedrine sulfate in increasing energy or the sense of energy and, at the same time, destroying sleep led to a series of experiments on sleep induced by sodium amytal. It was then discovered that benzedrine sulfate (a) given at the height of sodium amytal narcosis wakes the patient up almost immediately; (b) given prior to sodium amytal administration prevents sodium amytal narcosis from coming into effect; and (c) given simultaneously with sodium amytal also prevents sleep and keeps the patient in a lively wakeful condition.

2. In fact, the combined use of the two drugs in a case of dementia praecox will, for a short time, bring about a marked improvement in the patient's general mood; he will become accessible, talkative, approachable and often will disclose delusions which otherwise he hides. This, we believe, is a hint towards therapeutics as well as a diagnostic aid.

3. That this effect of benzedrine sulfate is not associated with its effect in raising blood pressure is shown by the fact that other drugs which raise blood pressure and which are similar in constitution to benzedrine sulfate, such as propadrine and paredrine, have no effect upon the sleep of sodium amytal narcosis.

E. *Epilepsy*: Furthermore, we have carried out and published an interesting series of experiments on epilepsy which relate to this counteracting effect of benzedrine sulfate upon the barbiturates. A considerable number of patients were treated with large doses of sodium phenobarbital. The result was a definite amelioration of the epileptic attacks, but this was attended in many patients by sleepiness and ataxia. When these patients were given benzedrine sulfate in small doses, the effect of the barbiturate on epilepsy was still maintained, but the disagreeable side effects disappeared. We believe it can be definitely stated that benzedrine sulfate is of great value in counteracting the depressing effects of the barbiturates.

F. *Argyll-Robertson pupil*: Interesting work was published from this laboratory on the Argyll-Robertson pupil, by which it is shown that the Argyll-Robertson pupil is fundamentally an imbalance between parasympathetic and sympathetic activities of the nervous system, so that parasympathetic predominates, apparently due to weakness or destruction of the sympathetic fibers. By the use of benzedrine sulfate, it is possible to restore for the time being the balance between sympathetic and parasympathetic



stimulation and to reproduce normal or nearly normal reactions of the pupil. The importance of this work lies in its implications, namely, that even where organic disease exists and lesions presumably destroy function, they do so largely by creating imbalance between opposing or parallel mechanisms, and that pharmacologically the balance may be restored even though there is actual organic destruction.

It was discovered in this laboratory and published last year that mecholyl and prostigmin had a marked effect in lowering intraocular tension. At the present time this physiologic fact has become of importance in treating glaucoma.

G. *Obesity*: A good deal of obesity is, we believe, due to, first, lack of activity which is associated with moderate depression or anhedonia, and second, a nibbling propensity which is largely psychological in its origin and which represents an effort to increase the satisfactions of life because of an underlying depression. Consequently, we introduced the benzedrine sulfate treatment of obesity, citing many cases in which marked improvement had taken place, and believe that this method is at present the best example of the value of drugs as an adjunct to changing the ways of life of people whose obesity is largely a result of their abnormal habits.

H. A series of experiments were carried out on the intra-arterial effects of the autonomic drugs. It was shown that mecholyl injected into the brachial artery caused a vasodilatation and sweating of the member but produced no general effects, so that it was clearly demonstrated that mecholyl was destroyed in the first transit through the capillary bed. Adrenalin injected into the artery creates an artificial Raynaud's disease without general effect, showing that it, too, is destroyed in this first transit zone. On the other hand, prostigmin, atropine and benzedrine sulfate are not local in effect. They enter the general circulation and consequently their effects are of longer duration than those of the first two drugs mentioned. Important side-lights in the production of Raynaud's disease and the general reaction to the tissues were obtained in this series of studies.

I. *Metrazol*: In connection with the treatment for schizophrenia by metrazol, the laboratory carried on pharmacological studies as to the essential effects of this drug.

1. Metrazol increases the sugar output probably by stimulation of the liver, possibly by a secondary production of adrenalin.

2. The  $\text{CO}_2$  and oxygen content of the blood is markedly reduced following the convulsion, and with it is a definite shift of the pH to the acid side. Whether these effects are the result of convulsion or the direct effects of metrazol can only be inferred. It is likely that the sugar increase is largely the effect of the drug. On the other hand, if the  $\text{CO}_2$  and oxygen reduction and shift towards acidosis is created by the convulsion, these effects are new in the history of convulsions and constitute an interesting contribution to the physiology of the convulsive state.

3. When metrazol is injected locally into an artery, it creates a vasodilatation of the blood vessels of the part injected. When metrazol is injected in animals and the animal is destroyed, it is found that there is a capillary construction in the early phases of the activity of the drug, followed by vasodilatation and some hemorrhages in the later phases. It is, therefore, apparent that a great deal of the effect of metrazol is associated with capillary and brain injury. This is also true of insulin, although the effects of the two drugs are markedly different, insofar as sugar is concerned.

## II. *General neuropathological studies*:

There are four main directions in which research in neuropathology was carried on during this past year.

A. *Microincineration and mineral studies generally*: A paper is now in press which demonstrates certain striking facts concerning two types of feeble-mindedness — Tay Sachs' disease and tuberous sclerosis. In Tay Sachs' disease the minerals of the nerve cells are almost entirely absent. There is what we call demineralization. By spectroscopic study there is shown to be a definite diminution of calcium in the brain of these patients. In tuberous sclerosis there is a marked increase in minerals in the nerve cells, thus furnishing a contrasting picture of almost perfect type of Tay Sachs' disease.

These diseases are of opposite type. The first is a regression or degenerative disorder, the second is a form of neoplastic disease. Consequently, the general principles which underly the mineral content of cells is beautifully exemplified by the case of these two diseases, namely, that in regressive degenerative disorders and in old age, the minerals diminish. In rapidly growing tissues and in youth, in neoplasm and in inflammation,

the minerals are increased in quantity. This, we believe, is the first time that these two diseases have been linked up with the quantity of minerals present.

B. *Experimental production of Wernicke's disease* in animals has been successfully brought about in this laboratory this year. By depriving pigeons of Vitamins B<sub>1</sub>, beri-beri is produced, and we have studied this condition quite extensively. In addition, however, the deprivation of these animals of Vitamin B<sub>2</sub> produces hemorrhages in the brain exactly corresponding in position and general symptomatology to the Wernicke's disease which is part of alcoholic avitaminosis. In other words, we have demonstrated that Wernicke's disease and alcoholism can be conceived of as entirely due to the avitaminosis which is part of the picture of alcoholism.

C. Considerable work on the vascular pattern of the brain and spinal cord has been done in this laboratory in conjunction with Harvard University and the Boston City Hospital. The vessels have been graded in various sizes. They have been brought into relationship with definite structures in a more precise way than has hitherto been possible, largely by the use of a new staining technique, the Lepehne-Pickworth method.

D. A new technique has appeared by which it is possible to demonstrate the urea crystals in bodily tissues and especially the brain. It has been shown that wherever there is kidney damage, more urea is discovered in the brain than normally. We are experimenting with this technique on animals to discover the effect of metrazol, insulin, and substances of similar type on the urea metabolism of the brain. The experiments have been in progress for too short a time for definite conclusions to be made.

### III. *Vitamin deficiencies and the nervous system:*

A. A study was made on the Vitamin C content of blood and spinal fluid in chronic alcoholism. It is learned that Vitamin C is diminished in amount in the blood and spinal fluid in alcoholism. The chronic alcoholic, therefore, suffers from (1) Vitamin B<sub>1</sub> deficiency in which case he is prone to develop alcoholic neuritis and kindred diseases; (2) Vitamin B deficiency in which case his disturbance runs in the direction of pellagra and severe mental alterations; and (3) he may suffer from Vitamin C deficiency which seems, on the whole, to be an adjunct deficiency to the other more important vitamins.

B. We have continued to work on the production of experimental beri-beri and neuritis, have carried on a large number of experiments in which protection against the production of neuritis has been brought about by chemical substances. Thus far, these experiments have not been productive except to re-establish the fact that Vitamin B<sub>1</sub> is the essential substance whose deficiency leads to neuritis and beri-beri.

C. The effect of Vitamin B<sub>2</sub> deficiency on the bone marrow and other hematogenous structures has been carried out by a long series of very conclusive experiments. These experiments have demonstrated that it is possible to produce a condition closely resembling pernicious anemia in pigeons; that by the use of dilute liver extract, it is possible to prevent this anemia from appearing in these birds and to cure the anemia once it is established. On the other hand, none of the Vitamin B<sub>2</sub> chemicals have thus far been successful in curing the anemia.

### IV. *Sex hormone studies:*

A very important division of the laboratory activity relates to the quantitative study of the male and female hormones in the urine. This laboratory, through the efforts of Dr. R. Neustadt, has developed a special technique which is a modification of the Evelyn method and which has been checked up by spectroscopic work, measuring fairly exactly the amount of male and female hormone in the urine. The biological methods used are not directly quantitative and are very unsatisfactory in the amount of time and expense necessary for their utilization and, in general, not directly clinical. We can definitely state that this method is, on the whole the most satisfactory in use and the first paper on the subject is appearing in a number of *Endocrinology* in the near future.

What this has disclosed is the following: That individuals vary greatly in the amount of male and female hormone in the urine; that these hormones are present in both the urine of male and female individuals; that the ratio of male and female hormone has some relationship to the sexual constitution of the individual; that there are individuals with a very low amount of hormone; and that there are males who seem predominantly female so far as hormone excretion is concerned.

Certain substances increase the hormone content, notably the adrenal cortex and various pituitary and sex hormones themselves.

Most interesting, however, to us and one which seems to us to carry many possibilities of great importance is the fact that ultra-violet radiation has an extraordinary effect in

raising the amount of male and female hormone. Thus far, our experiments have been conducted only on males. The male hormone and also the female will rise steadily after the first day or two of irradiation and, to a certain extent, in a week reaches a level of two or three times the amount formerly excreted. When the irradiation is stopped, the hormones drop to normal and can be raised again by irradiation.

This brings up the important question of whether or not there is some relationship of Vitamin D or irradiated cholesterol to the production of the hormones. These substances are closely related in chemical structure, and it may very well be that there is a close relationship and biological inter-dependence. At any rate, this work is to be actively prosecuted within the next year in several directions.

*V. The "total push" method:*

Work has been started by the director in cooperation with the McLean Hospital on a method of treating chronic schizophrenics called the "total push" method.

The work is based on the following observations. Schizophrenia does not seem to be as deeply seated a condition as we have on the whole assumed it to be. The proof for this statement lies in the following facts: First, that even patients who show marked deterioration and have been sick for a long time will suddenly show remarkable recovery and come back to a condition which is not far away from normal, shaking or throwing off what has seemed to be a hopeless deterioration. Second, under the influence of amytal and especially under the influence of amytal and benzedrine sulfate, a patient who is markedly retreated, completely out of touch with his environment, deeply under the influence of delusions and hallucinations, will make surprising improvement for an hour or two. He will talk freely; he will show normal affect; he will become socially agreeable, discuss the events which are taking place around him with apparent participation; and then unfortunately slip into his former retreated state.

This is not only true of sodium amytal and benzedrine sulfate but, of course, is remarkably true of the insulin shock and metrazol therapy. The change that takes place for a time is quite striking, and whatever the explanation is, it is obvious that the physiological and psychological imbalance which we call schizophrenia is not irreversible.

In institutions where the patients are given exercise, out-of-doors, entertainment, and generally "partial push," a very marked change appears in the general conduct of the institution and especially of the schizophrenics. This has been carried on at the Boston State Hospital for the past two years. A very marked increase in the amount of hydrotherapy, of out-door exercise, of entertainment, and in the general approximation to more normal living has had distinct and demonstrably beneficial effects throughout the institution.

Furthermore, it has seemed to the director for a considerable number of years that a large part of what we call deterioration in schizophrenia is "prison stupor"; that is to say, it is a resultant of an original disease process plus the circumstances usually attendant upon hospitalization or upon social neglect. The individual is removed from all motivation and those influences which operate with great vigor upon normal individuals, namely, praise, blame, reward and punishment are removed entirely from their position as conduct determinants. The individual lives in what is here called a motivation vacuum. Furthermore, and in harmony with this, all-initiative is removed and because of the general retreat of the individual from social contact, he becomes more and more seclusive and consequently less and less is done for him. He has but little active exercise physically and none whatever mentally.

Taking all these facts together, the method of total push was introduced in a concerted and active way at the McLean Hospital with the cordial and enthusiastic cooperation of Dr. Kenneth Tillotson, the medical director. Patients were selected who had an average of eleven years' hospitalization and who during that time presented no remissions, who had grown definitely worse, and who were in a state of complete retreat and apparent personality dilapidation. The method of total push was employed embracing (1) physical exercise and out-of-doors vigorously carried out, at first against the will of the patient and later invariably with his cooperation; (2) physiotherapy, including ultraviolet radiation for the purpose of building up general vigor and for stimulation; (3) calories, vitamins and hormones were used as indicated by the general condition of the patient; (4) reward, punishment, praise and blame were vigorously introduced for motivating the patient.

The experiment has now been going on for about six weeks. Results in all instances have been good and in many instances quite remarkable. A detailed account of these results will appear during the next few months, but what has been so far accomplished has been striking enough to establish (1) that the dilapidation and deterioration in the schizophrenic is in part an artifact and that it is consequently rather readily ameliorated; (2) that there has been a distinct improvement in the morale and energy of the institution as a whole. It is probable that the method of total push has a very useful effect upon the physicians and attendants of the sick as well as upon the patients themselves.

#### VI. *Organization activities:*

The director has been closely connected with two important groups actively engaged in presenting the results and the necessities of psychiatry to the outside world.

A. He has been chairman of a sub-committee of the American Association for the Advancement of Science to present at their annual meeting at the Symposium of Mental Health the topic "Sources of Mental Disease; Their Amelioration and Prevention". This topic includes heredity, syphilis, alcohol, vitamin deficiency, birth control, fatigue, foster children, and immigration, and their general relationship to mental disease. Papers have been written by experts in these fields and a summary and running comment on the situation is to be presented at the December meeting of the Association by the director. This paper is to be published.

B. The director is a member of a research group presenting at the annual meeting of the Association for Research in Nervous and Mental Disease a paper on The Inter-Relationship of Mind and Body. His topic is "The Effects of Heredity on Mental and Emotional Processes" and contains some original concepts of this relationship. This will be published as part of the proceedings of the Association.

C. At the annual meeting of the American Psychopathological Association held in May, the director was moderator at a round table discussion on the question: "Are Mental Diseases on the Increase.". The paper read by the moderator in summarizing the discussion will be published in the Psychiatric Quarterly. It appears that it can be definitely established that the psychoses due to alcohol are at about a level since the repeal of the Prohibition Enactment. The syphilitic diseases are on the decrease. The schizophrenic and cyclothymic psychoses, lumped together as the hereditary or constitutional mental diseases, are not increasing or decreasing during the past twenty years. The main increase in mental disease has come in the diseases of the senium when arteriosclerosis and senile dementia are lumped together, since the difficulties of separating them in life by differential diagnosis is not successfully accomplished.

The recommendation made at that time by the director was to the effect that special institutional care should be brought about for the senile psychoses since the same kind of institution is not necessary for them as for the other mental diseases.

D. The director has taken an active part in the researches carried out at the Grafton State Hospital. In this institution in collaboration with its physicians, a long time program has been carried out in respect to epilepsy and in relationship to the total push method.

The director hopes and believes that the work here indicated has been very fruitful and that it has brought about leads of importance both to clinical medicine and more especially to psychiatry.

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2. Human Autonomic Pharmacology. XI. Effect of benzedrine sulfate on the Argyll Robertson pupil. *Arch. Neurol. & Psychiat.* 39:780-788 (April) 1938. (A. Myerson, W. Thau).

3. Human Autonomic Pharmacology. XII. Theories and results of autonomic drug administration. *J. A. M. A.* 110:101-103 (Jan. 8) 1938. (A. Myerson).

4. Human Autonomic Pharmacology. XIII. Effect of mecholyl and prostigmin on size and tonus of bladder. *J. Urol.* 40:280-284 (August) 1938. (B. Greenberg, J. Loman, A. Myerson).

5. Human Autonomic Pharmacology. XVI. Benzedrine sulfate as an aid in the treatment of obesity. *New England J. Med.* 218:119-124 (Jan. 20) 1938. (M. F. Lesses, A. Myerson).

6. Human Autonomic Pharmacology. XVIII. Effects of the intra-arterial injection of acetylcholine, acetyl-beta-methylcholine chloride, epinephrine, and benzedrine sulfate. *Am. Heart J.* 16:329-335 (Sept.) 1938. (A. Myerson J. Loman, M. Rinkel, M. F. Lesses).
7. Human Autonomic Pharmacology. XIX. The effect of mecholyl, prostigmin, benzedrine sulfate and atropine on the urinary tract; urographic studies. *New England J. Med.* 219:655-660 (Oct. 27) 1938. (J. Loman, B. Greenberg, A. Myerson).
8. The effective use of phenobarbital and benzedrine sulphate (amphetamine sulfate) in the treatment of epilepsy. *Am. J. Psychiat.* 95:371-393 (Sept.) 1938. (B. Cohen, A. Myerson).
9. Neuroses and neuropsychoses — illustrative case histories. *Am. J. Psychiat.* 94: 961-983 (Jan.) 1938. (A. Myerson)
10. Minerals in normal and pathologic brain tissue, studied by microincineration and spectroscopy. *Arch. Neurol. & Psychiat.* 39:131-149 (Jan.) 1938. (L. Alexander, A. Myerson).
11. Human craniovertebral dynamics. *Am. J. Surg.* 39:479-494 (Mar.) 1938. (J. Loman).
12. The neurone as studied by microincineration. *Brain* 61:52-62 (Mar.) 1938. (L. Alexander).
13. Ascorbic acid in cerebrospinal fluid. *J. Clin. Investig.* 17:169-172 (Mar.) 1938. (L. Alexander).
14. Traumatic neuroses. *Medical Clinics of North America*, Boston number: 647-662 (May) 1938. (A. Myerson).
15. Vascular pattern in various lesions of the human central nervous system. Studies with the benzidine stain. *Arch. Neurol. & Psychiat.* 39:1150-1202 (June) 1938. (A. C. P. Campbell, L. Alexander, T. J. Putnam).
16. New modifications of the benzidine stain for study of the vascular pattern of the central nervous system. *Arch. Neurol. & Psychiat.* 40: 158-162 (July) 1938. (M. M. Doherty, T. H. Sun, L. Alexander).
17. Cevitamic acid content of blood plasma in alcoholic psychoses. *Arch. Neurol. & Psychiat.* 40:58-65 (July) 1938. (L. Alexander, M. Pijoan, P. G. Schube, M. Moore).
18. The legal phases of psychiatry. *Am. J. Medical Jurisprudence* 1:73-78 (Oct.) 1938 (A. Myerson).
19. Studies on cholinesterase activity. I. A manometric method of assaying cholinesterase action. *J. Pharmacol. & Exper. Therap.* 64:228-235 (Oct.) 1938. (M. Rinkel, M. Pijoan).
20. Cholesterolysis in the blood plasma of normal man. *Jour. Lab. & Clin. Med.* 23:711-717 — (April, 1938), (P. G. Schube, N. Raskin, E. Campbell).

#### PAPERS READ

1. Clinical and neuropathological aspects of electrical injuries. (Read by L. Alexander before the Boston Society of Psychiatry and Neurology, Dec. 16, 1937 and before the Association for Research in Nervous and Mental Disease, Dec. 28, 1937).
2. Pathological alterations of cerebral vascular patterns. (Read by L. Alexander before the Association for Research in Nervous and Mental Disease, Dec. 27, 1937).
3. Human autonomic pharmacology. (Read by A. Myerson before the R.C. R.C. Club of Harvard, Jan. 11, 1938).
4. Heredity and eugenics. (Read by A. Myerson before the Jewish Academy of Arts and Sciences, New York City, Jan. 23, 1938).
5. Autonomic pharmacology. (Read by A. Myerson before the Boston University Medical School, Feb. 2, 1938).
6. The effect of benzedrine sulfate and adrenalin chloride on normal and drug-induced sleep. (Read by A. Myerson and associates before the Boston Society of Psychiatry and Neurology, Feb. 17, 1938).
7. The neuroses. (Read by A. Myerson before the Middlesex South Osteopathic Society, March 3, 1938).
8. Human autonomic pharmacology. (Read by A. Myerson before the Worcester Tufts Medical Club, Mar. 16, 1938).
9. Sterilization in a democracy. (Read by A. Myerson before the Old South Forum, Mar. 20, 1938).
10. Energy, fatigue and rest. (Read by A. Myerson before the Jewish Anti-Tuberculosis Association, Mar. 23, 1938).

11. Problems of sterilization. (Read by A. Myerson, Peter Bent Brigham Hospital, Mar. 24, 1938).
12. Eugenics. (Read by A. Myerson before the Gamma Alpha Scientific Society, Harvard University, Mar. 30, 1938).
13. Human autonomic pharmacology. (Read by A. Myerson before the George Bates Society, Tufts Dental School, April 22, 1938).
14. Human autonomic pharmacology. (Read by J. Loman before the Beth Israel Hospital Staff, April 27, 1938).
15. Autonomic nervous system and the newer pharmacology. (Read by A. Myerson before the Litchfield County Medical Association, Torrington, Conn. April 26, 1938).
16. Beri-beri and scurvy; an experimental study. (Read by L. Alexander, A. Myerson, and M. Pijoan before the American Neurological Association, Atlantic City, N. J., May 3, 1938).
17. Are mental diseases on the increase? (Read by A. Myerson, chairman before the American Psychopathological Association, Atlantic City, N. J., May 4, 1938).

#### FINANCIAL STATEMENT

The appropriation for maintenance for the past year was \$1,172,380, plus an amount of \$15,717.87 brought forward from 1937, making a total appropriation of \$1,188,097.87. The expenditures amounted to \$1,148,711.26 giving a weekly cost per patient of \$9.1106.

The estimate for maintenance for the coming year, based on a patient population of 2,440 is as follows:

Personal services . . . . .	\$725,240.00
Travel, transportation and office expenses . . . . .	11,250.00
Food . . . . .	310,500.00
Clothing and materials . . . . .	49,300.00
Religious instruction . . . . .	2,080.00
Furnishings and household supplies . . . . .	48,750.00
Medical and general care . . . . .	27,150.00
Heat and other plant operations . . . . .	113,200.00
Farm . . . . .	—
Garage and grounds . . . . .	19,529.00
Repairs, ordinary . . . . .	22,750.00
Repairs and renewals . . . . .	49,010.00
	<hr/>
	\$1,378,759.00

#### RECOMMENDATIONS

Considerable money has been spent on the installation of fire exits and plumbing in the old stucco buildings of this institution, namely, C, D, M, N, and R Buildings. If these buildings could be re-wired and more plumbing installed, they would be entirely satisfactory for the use of patients.

This institution is in need of a centrally located Auditorium-Chapel-Gymnasium. At the present time, there is no gymnasium in this institution and the Chapel-Auditorium is inadequate to properly care for the number of patients attending functions.

A service building, housing the bakeshop, storehouse, kitchens, and dining rooms, is badly needed in this institution. At the present time, these facilities are inadequate and are scattered throughout the hospital grounds. It is felt that these facilities would function much more efficiently if centralized in one large plant.

As previously recommended, a tunnel system under Morton Street and connecting the individual buildings throughout the hospital would greatly increase the efficiency of the institution.

The electric wiring in this institution should be placed underground as previously recommended.

A central Industrial Building is needed at this institution. The old West Center Office Building has been converted into an Industrial Shop. Although this is much better than the former accommodations in the basements of patients' buildings, it is felt that still much more industrial therapy could be used for the patients with more adequate housing facilities.

There still remains on the hospital property a large area of swamp land which is a breeding place for enormous numbers of mosquitoes. It is also extremely unhealthy for the patients. The purchase of enough fill, as previously recommended, to completely eliminate this waste land is highly advisable.

## CONCLUSION

I wish to extend my sincere thanks to the members of the Board of Trustees for their cooperation and helpfulness at all times during the past year, and to assure them that it has been greatly appreciated by me. Also, I wish to thank all those others who have contributed to the health and happiness of the patients during the past year.

Respectfully submitted,

HAROLD F. NORTON,

*Superintendent.*

## VALUATION

November 30, 1938

## REAL ESTATE

Land, 224.66 acres . . . . .	\$974,100.00
Buildings and Betterments . . . . .	3,866,792.76
	<u>\$4,840,892.76</u>

## FINANCIAL REPORT

*To the Department of Mental Health:*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1938.

## STATEMENT OF EARNINGS

Board of Patients . . . . .	\$88,072.67
Personal Services . . . . .	\$319.66
Sales:	
Travel, transportation and office expenses . . . . .	\$139.05
Food . . . . .	803.35
Furnishings and household supplies . . . . .	10.00
Heat and other plant operations . . . . .	25.00
Repairs ordinary . . . . .	157.69
Farm: (1 Boar, \$5; Farm equipment, \$41; Grain, \$2) . . . . .	48.00
Total Sales . . . . .	<u>\$1,183.09</u>
Miscellaneous . . . . .	\$70.02

Total earnings for the year . . . . .	\$89,645.44
Total cash receipts reverting and transferred to the State Treasurer . . . . .	\$89,651.44
Accounts receivable outstanding Dec. 1, 1938 . . . . .	\$6.00
Accounts receivable increased . . . . .	\$6.00

## MAINTENANCE APPROPRIATION

Balance from previous year, brought forward . . . . .	\$15,717.87
Appropriation, current year . . . . .	<u>\$1,172,380.00</u>
Total . . . . .	<u>\$1,188,097.87</u>
Expenditures as Follows:	
Personal services . . . . .	\$639,940.36
Food . . . . .	237,667.10
Medical and general care . . . . .	22,108.79
Religious instruction . . . . .	2,079.98
Farm . . . . .	1,201.43
Heat and other plant operation . . . . .	95,498.54
Travel, transportation and office expenses . . . . .	10,002.80
Garage, \$6,781.04; grounds, \$1,585.79 . . . . .	8,366.83
Clothing and materials . . . . .	31,294.61
Furnishings and household supplies . . . . .	38,097.88
Repairs ordinary . . . . .	32,397.15
Repairs and renewals . . . . .	<u>30,055.79</u>

Total maintenance expenditures . . . . . \$1,148,711.26

Balances of maintenance appropriation, Nov. 30, 1938 . . . . . \$39,386.61

## SPECIAL APPROPRIATIONS

Balance December 1, 1937, brought forward . . . . .	\$76,688.32
Appropriations for current year . . . . .	<u>\$44,925.00</u>

Total . . . . .	<u>\$121,613.32</u>
Expended during the year . . . . .	\$68,462.77
Reverting to Treasury of Commonwealth . . . . .	205.62
Balance November 30, 1938, carried to next year . . . . .	<u>\$52,944.93</u>

APPROPRIATION	Act or Resolve	Total Amount Appropriated	Expended during fiscal year	Total Expended to date	Balance at end of year
Iron fence	Yr. Ch. 1937-434	\$13,000.00	\$3,355.81	\$12,042.72	\$957.28
Mass. State Project No. M-111					
Docket 1151, sprinklers . . . . .		79,619.82	7,464.76	79,619.82	—
Fire protection . . . . .	1937-234	62,200.00	39,487.93	39,487.93	22,712.07
Renewing and renovating plumbing, etc. . . . .	1937-234a	35,000.00	14,789.41	34,356.99	643.01
Sterilization equipment . . . . .	1937-234	3,000.00	2,980.50	2,983.07	16.93
W. P. A. materials . . . . .	1938-497	15,000.00	—	—	15,000.00
Hurricane and Flood damages . . . . .	1938-307	14,000.00	384.36	384.36	13,615.64
Laundry equipment . . . . .	1936-304	1,500.00	—	1,294.38	205.62 <sup>1</sup>
		<u>\$223,319.82</u>	<u>\$68,462.77</u>	<u>\$170,169.77</u>	<u>\$52,944.93</u>

<sup>1</sup>As of 6/2/38.

## PER CAPITA

During the year the average number of patients has been, 2,424.713.  
 Total cost of maintenance, \$1,148,711.26  
 Equal to a weekly per capita cost of \$9.1106.  
 Total receipts for the year, \$89,645.44.  
 Equal to a weekly per capita of, \$.7110.  
 Total net cost of Maintenance for year, \$1,059,065.82.  
 Net weekly per capita, \$.83996.

Respectfully submitted,

ROSE J. SICILIANO,

*Treasurer.*

Financial Statement Verified.  
 Approved.

GEORGE E. MURPHY,

*Comptroller.*

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION, PRESCRIBED BY THE  
 MASSACHUSETTS DEPARTMENT OF MENTAL HEALTH

TABLE 1. *General Information*

(Data correct at end of institution year November 30, 1938)

Date of opening as a hospital for mental diseases: December 11, 1839.

Type of hospital: State.

Hospital plant:

Value of hospital property:

Real estate, including buildings . . . . .

\$4,840,892.76

Personal property . . . . .

not valued

Total . . . . .

\$4,840,892.76

Total acreage of hospital property owned, 224.66.

Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	13	3	16	—	—	—
Total physicians . . . . .	14	3	17	—	—	—
Stewards . . . . .	1	—	1	1	—	1
Resident dentists . . . . .	1	—	1	—	—	—
Pharmacists . . . . .	1	—	1	—	—	—
Graduate nurses . . . . .	1	79	80	—	4	4
Other nurses and attendants . . . . .	156	222	378	3	2	5
Occupational therapists . . . . .	1	12	13	—	—	—
Social workers . . . . .	—	4	4	—	1	1
All other officers and employees . . . . .	130	97	227	2	3	5
Total officers and employees . . . . .	305	417	722	6	10	16

Classification by Diagnosis: September 30, 1938

Census of Patient Population at end of year:

	Actually in Hospital			Absent from Hospital but still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane . . . . .	998	1,296	2,294	126	129	255
Mental defectives . . . . .	3	4	7	—	—	—
Alcoholics . . . . .	1	2	3	—	—	—
Drug addicts . . . . .	1	—	1	—	—	—
All other cases . . . . .	3	1	4	—	—	—
Total . . . . .	1,006	1,303	2,309	126	129	255
OTHER RACES:						
Insane . . . . .	39	38	77	3	9	12
Total . . . . .	39	38	77	3	9	12
Grand Total . . . . .	1,045	1,341	2,386	129	138	267

Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .	808	898	1,706
Other patients employed in general work of hospital on date of report . . . . .	271	385	656
Average daily number of all patients actually in hospital during year . . . . .	1,058.08	1,363.52	2,421.60
Voluntary patients admitted during year . . . . .	3	4	7
Persons given advice or treatment in out-patient clinics during year . . . . .	60	115	175



TABLE 2. *Movement of Patient Population for the Year Ended September 30, 1938*  
(Data in all of the following tables are based on the Statistical Year, October 1, 1937 to September 30, 1938)

	TOTAL			REGULAR COURT COMMITMENT (INSANE)			OBSERVATION			TEMPORARY CARE			VOLUNTARY		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1937	1,151	1,521	2,672	1,146	1,519	2,665	4	1	5						
Admissions during year:															
First Admissions	353	298	651	255	233	488	46	13	59	52	52	104			
Readmissions	138	134	272	95	100	195	22	8	30	18	22	40	3	4	7
Total admissions	491	432	923	350	333	683	68	21	89	70	74	144	3	4	7
Transfers from other mental hospitals	11	12	23	11	12	23									
Total received during year	502	444	946	361	345	706	68	21	89	70	74	144	3	4	7
Total on books during year	1,653	1,965	3,618	1,507	1,864	3,371	72	22	94	71	75	146	3	4	7
Discharged from books during year:															
As recovered	92	101	193	83	93	176	3	1	4	5	6	11	1	1	2
As improved	96	121	217	79	105	184	2	6	8	15	9	24		1	1
As unimproved	58	71	129	25	31	56	7	2	9	26	37	63		1	1
As without psychosis	76	39	115	5	8	13	52	11	63	17	20	37	2	2	2
Total discharged to community	322	332	654	192	237	429	64	20	84	63	72	135	3	3	6
Transferred to other mental hospitals.	34	36	70	33	36	69	1	1	1						
Died during year	123	118	241	116	116	232	1	1	1	7	1	8			
Total discharged, transferred and died during year	479	486	965	341	389	730	65	21	86	70	73	143			
Patients remaining on books of hospital at end of year:															
In hospital	1,045	1,341	2,386	1,037	1,337	2,374	7	1	8	1	2	3		1	1
On parole or otherwise absent	129	138	267	129	138	267									
Total.	1,174	1,479	2,653	1,166	1,475	2,641	7	1	8	1	2	3		1	1

## SUPPLEMENTARY DATA

	Males	Females	Total
Average daily number of patients on books during year.	1,173.58	1,525.33	2,698.91
Actually in institution during year	1,058.08	1,363.52	2,421.60
in family care	-	4.54	4.54
On visit	111.49	156.25	267.74
On escape	4.01	1.02	5.03
Number of patients actually remaining in institution September 30, 1938			
State	963	1,173	2,136
Reimbursing	82	167	249
Ex-service patients paid by Federal Government	-	1	1
Number of patients in family care September 30, 1938	-	2	2
State	-	2	2
Number of non-insane patients in hospital at end of institution year:			
Mentally defective	3	4	7
Others	5	3	8

TABLE 3. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States <sup>1</sup>	214	167	381	103	95	82	61	58	46
Austria	1	—	1	1	1	1	—	—	—
Canada <sup>2</sup>	23	29	52	25	25	19	38	35	27
China	1	—	1	2	2	1	—	—	—
Cuba	—	—	—	—	—	—	—	1	—
Denmark	3	1	4	3	3	3	—	1	—
England	8	4	12	8	9	6	12	14	10
Finland	1	—	1	1	1	1	1	1	1
France	1	1	2	1	—	—	2	1	1
Germany	—	1	1	—	2	—	1	—	—
Greece	2	1	3	5	5	5	1	1	1
Holland	1	1	2	1	1	1	2	2	2
Ireland	42	55	97	95	99	87	88	96	79
Italy	23	14	37	33	33	33	22	23	22
Jugo-Slavia	—	—	—	1	1	1	—	—	—
Norway	1	—	1	1	1	1	—	—	—
Poland	1	4	5	4	2	2	8	7	7
Portugal	1	—	1	3	3	3	4	4	4
Russia	11	7	18	15	14	14	13	12	12
Scotland	3	6	9	7	6	6	10	10	7
Spain	1	—	1	—	—	—	—	—	—
Sweden	4	2	6	2	2	2	2	2	2
Switzerland	—	—	—	1	—	—	—	—	—
Turkey in Asia	2	—	2	—	—	—	—	—	—
Wales	—	1	1	—	—	—	1	—	—
West Indies <sup>3</sup>	2	1	3	2	2	2	3	2	2
Other Countries	4	2	6	6	6	6	5	5	5
Unknown	3	1	4	33	40	33	24	23	23
Total	353	298	651	353	353	309	298	298	251

<sup>1</sup>Persons born in Hawaii, Porto Rico and the Virgin Islands should be recorded as born in the U.S.<sup>2</sup>Includes Newfoundland.<sup>3</sup>Except Cuba, Porto Rico and Virgin Islands.

TABLE 4. *Age of First Admissions Classified with Reference to Nativity and Length of Residence in the United States of the Foreign Born*

[illegible]

TABLE 5. *Citizenship of First Admissions*

	M.	F.	T.
Citizens by birth	215	167	382
Citizens by naturalization	53	47	100
Aliens	30	36	66
First papers	2	3	5
Citizenship unknown	53	45	98
Total	353	298	651

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	TOTAL			With syphilitic meningo-encephalitis			With other forms of syphilis			With other infectious diseases			Alcoholic psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	24	11	35	3	—	3	—	—	—	—	—	—	—	—	—
Chinese	3	—	3	1	—	1	—	—	—	—	—	—	—	—	—
Dutch and Flemish	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
English	7	18	25	1	—	1	—	—	—	—	—	—	1	1	—
Finnish	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
French	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—
German	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—
Greek	5	1	6	2	—	2	—	—	—	—	—	—	—	—	—
Hebrew	20	18	38	—	—	—	—	—	—	—	—	—	—	—	—
Irish	87	85	172	—	—	—	—	—	—	2	2	—	15	2	17
Italian <sup>1</sup>	34	23	57	5	1	6	—	—	—	1	—	1	2	—	2
Lithuanian	4	4	8	—	—	—	—	—	—	—	—	—	3	1	4
Portuguese	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	7	3	10	—	—	—	—	—	—	—	—	—	2	—	2
Scotch	3	8	11	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	5	4	9	—	—	—	—	—	—	—	—	—	—	—	—
Syrian	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
West Indian <sup>4</sup>	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	133	105	238	—	4	4	1	1	2	—	—	—	11	8	19
Race unknown	12	10	22	—	—	—	—	—	—	—	—	—	2	1	3
Total	353	298	651	12	5	17	1	1	2	1	2	3	35	13	48

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Traumatic psychoses			With cerebral arteriosclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Senile psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	1	—	1	7	7	14	—	—	—	—	—	—	—	—	—
Chinese	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Dutch and Flemish	—	—	—	6	10	16	—	—	—	—	—	—	—	—	—
English	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Finnish	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—
French	—	—	—	2	1	3	—	—	—	—	—	—	—	—	—
German	—	—	—	7	6	13	—	—	—	—	—	—	—	—	—
Greek	—	—	—	43	43	86	1	1	2	1	—	1	1	2	3
Hebrew	—	—	—	12	6	18	—	1	1	—	—	—	—	—	—
Irish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italian <sup>1</sup>	—	—	—	1	—	1	—	—	—	—	1	1	—	—	—
Lithuanian	—	—	—	5	3	8	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	3	6	9	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Syrian	—	—	—	45	49	94	—	—	—	3	2	5	4	3	7
West Indian <sup>4</sup>	4	—	4	7	6	13	—	—	—	—	—	—	—	1	1
Mixed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Race unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5	—	5	145	137	282	1	2	3	5	3	8	5	6	11

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup>Except Cuba.

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Involutional psychoses			Due to other metabolic diseases, etc.			Due to new growth			With organic changes of nervous system			Psycho-neuroses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch and Flemish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	1	1	—	1	1	—	—	—	—	1	1	—	—	—
Finnish	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
French	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	2	1	3	—	1	1	—	—	—	2	—	2	—	1	1
Irish	5	8	13	—	2	2	—	1	1	2	—	2	—	3	3
Italian <sup>1</sup>	—	1	1	1	—	1	—	—	—	2	—	2	—	—	—
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Indian <sup>4</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	4	2	6	2	2	4	—	—	—	1	1	2	—	2	2
Race unknown	—	—	—	—	—	—	—	—	—	1	1	2	—	—	—
Total	11	16	27	3	6	9	—	1	1	8	4	12	1	6	7

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Manic-depressive psychoses			Dementia praecox			Paranoia and paranoid conditions			With mental deficiency			Undiagnosed psychoses			Without psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	1	1	3	3	6	1	—	1	2	—	2	—	—	—	6	—	6
Chinese	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Dutch and Flemish	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
English	—	2	2	—	1	1	—	—	—	—	—	—	—	—	—	1	1	—
Finnish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	—	1	1	1	—	1	—	—	—	—	—	—	—	—	—	2	—	2
Hebrew	—	3	3	3	6	9	—	—	—	—	—	—	—	—	—	5	—	5
Irish	3	5	8	7	8	15	—	5	5	1	—	1	—	—	—	8	3	11
Italian <sup>1</sup>	3	5	8	4	5	9	—	—	—	—	—	—	2	—	2	2	4	6
Lithuanian	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—	2	2	—
Portuguese	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	1	1	1	2	3	—	—	—	—	—	—	—	—	—	2	—	2
Syrian	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	1	1
West Indian <sup>4</sup>	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	4	8	12	19	4	23	3	3	6	3	1	4	1	—	1	28	15	43
Race unknown	—	—	—	1	—	1	—	1	1	—	—	—	—	—	—	1	—	1
Total	10	27	37	43	32	75	4	9	13	6	1	7	3	—	3	54	27	81

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup>Except Cuba.

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			0-14 years			15-19 years			20-24 years			25-29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	12	5	17	-	-	-	-	-	-	1	-	1	2	-	2
With other forms of syphilis	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	35	13	48	-	-	-	-	-	-	-	1	1	2	1	3
Traumatic psychoses	5	-	5	1	-	1	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	145	137	282	-	-	-	-	-	-	-	-	-	-	-	-
With other disturbances of circulation	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epil.)	5	3	8	-	-	-	1	-	1	1	1	2	1	-	1
Senile psychoses	5	6	11	-	-	-	-	-	-	-	-	-	-	-	-
Involuntal psychoses	11	16	27	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	3	6	9	-	-	-	-	-	-	-	-	-	-	2	2
Due to new growth	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	8	4	12	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses	1	6	7	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	10	27	37	-	-	-	2	4	6	1	4	5	1	1	2
Dementia praecox	43	32	75	-	1	1	6	2	8	12	8	20	5	6	11
Paranoia and paranoid conditions	4	9	13	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	6	1	7	-	-	-	2	-	2	2	-	2	-	-	-
Undiagnosed psychoses	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-
Without psychoses	54	27	81	1	2	3	7	1	8	6	3	9	5	1	6
Total	353	298	651	2	3	5	18	7	25	23	17	40	16	11	27

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued*

PSYCHOSES	30-34 years			35-39 years			40-44 years			45-49 years			50-54 years			55-59 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	-	-	-	1	1	2	1	2	3	2	1	3	2	1	3	2	-	2
With other forms of syphilis	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
With other infectious diseases	1	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	3	3	6	2	3	5	2	-	2	9	1	10	4	2	6	6	-	6
Traumatic psychoses	-	-	-	-	-	-	-	-	-	1	-	1	1	-	1	-	-	-
With cerebral arteriosclerosis	-	-	-	-	-	-	1	-	1	1	-	1	4	3	7	7	8	15
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epil.)	1	-	1	-	1	1	1	1	2	-	-	-	-	-	-	-	-	-
Senile psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Involuntal psychoses	-	-	-	-	1	1	1	1	2	2	8	10	3	2	5	4	4	8
Due to other metabolic diseases, etc.	-	-	-	1	1	2	-	2	2	1	-	1	-	-	-	-	-	-
Due to new growth	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
With organic changes of nervous system	-	1	1	1	-	1	-	-	-	2	-	2	1	2	3	4	-	4
Psychoneuroses	-	-	-	-	3	3	1	1	2	-	2	2	-	-	-	-	-	-
Manic-depressive psychoses	1	4	5	1	5	6	-	1	1	2	5	7	1	2	3	-	-	-
Dementia praecox	8	6	14	6	6	12	2	1	3	2	1	3	1	1	2	-	-	-
Paranoia and paranoid conditions	-	-	-	1	-	1	2	1	3	1	3	4	-	2	2	-	2	2
With mental deficiency	-	-	-	-	1	1	-	-	-	1	-	1	1	-	1	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	1	-	1	1	-	1	-	-	-	1	-	1
Without psychoses	1	1	2	12	5	17	5	3	8	5	2	7	3	1	4	3	-	3
Total	15	15	30	25	28	53	17	13	30	31	24	55	21	16	37	27	14	41

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	60-64 years			65-69 years			70-74 years			75-79 years			80-84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other forms of syphilis	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	4	1	5	-	1	1	2	-	2	1	-	1	-	-	-	-	-	-
Traumatic psychoses	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	29	22	51	35	23	58	26	31	57	31	25	56	7	14	21	4	11	15
With other disturbances of circulation	-	-	-	-	-	-	1	2	3	-	-	-	-	-	-	-	-	-
With convulsive disorders (epil.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	-	-	-	-	-	-	2	3	5	1	2	3	-	1	1	2	-	2
Involuntional psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	1	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Due to new growth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dementia praecox	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Without psychoses	2	3	5	1	2	3	1	-	1	1	2	3	-	-	-	1	1	2
Total	40	28	68	38	29	67	32	36	68	34	30	64	7	15	22	7	12	19

TABLE 8. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	TOTAL			Illiterate			Reads Only			Reads and Writes			Common School			High School			College			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	12	5	17	1	—	1	—	—	—	2	—	2	7	4	11	—	—	—	—	—	—	2	—	2
With other forms of syphilis . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	1	1
With other infectious diseases . . . . .	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Alcoholic psychoses . . . . .	35	13	48	1	—	1	—	—	—	4	1	5	19	7	26	1	—	—	2	—	—	7	1	8
Traumatic psychoses . . . . .	5	—	5	—	—	—	—	—	—	2	—	2	1	—	1	—	—	—	—	—	—	—	—	—
With cerebral arteriosclerosis . . . . .	145	137	282	12	10	22	2	2	2	16	13	29	48	62	110	15	16	31	3	4	7	49	32	81
With other disturbances of circulation . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With convulsive disorders (epilepsy) . . . . .	5	3	8	—	—	—	—	—	—	—	—	—	2	2	4	3	—	—	—	—	—	1	—	1
Senile psychoses . . . . .	5	6	11	—	—	—	—	—	—	1	—	1	8	9	17	1	3	4	1	—	—	2	2	4
Involuntary psychoses . . . . .	11	16	27	—	—	—	—	—	—	—	—	—	2	3	5	—	—	—	—	—	—	1	1	1
Due to other metabolic diseases, etc. . . . .	3	6	9	—	—	—	—	—	—	—	—	—	2	3	5	—	—	—	—	—	—	1	2	3
Due to new growth . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With organic changes of nervous system . . . . .	8	4	12	—	—	—	—	—	—	—	—	—	6	2	8	1	—	—	—	—	—	1	2	3
Psychoneuroses . . . . .	1	6	7	—	—	—	—	—	—	—	—	—	1	4	5	—	—	—	—	—	—	—	—	—
Manic-depressive psychoses . . . . .	10	27	37	—	—	—	—	—	—	1	1	2	4	10	14	4	9	13	—	—	—	1	4	5
Dementia praecox . . . . .	43	32	75	—	—	—	—	—	—	1	—	1	22	1	23	16	18	34	2	12	14	2	1	3
Paranoia and paranoid conditions . . . . .	4	9	13	—	—	—	—	—	—	—	—	—	4	6	10	—	—	—	—	—	—	2	1	1
With mental deficiency . . . . .	6	3	9	—	—	—	—	—	—	—	—	—	3	—	3	—	—	—	—	—	—	—	—	—
Undiagnosed psychoses . . . . .	3	1	4	1	1	2	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Without psychoses . . . . .	54	27	81	7	4	11	—	1	1	3	—	3	29	13	42	9	5	14	2	1	3	4	3	7
Total . . . . .	353	298	651	22	17	39	2	2	4	31	18	49	159	128	287	55	60	115	11	20	31	73	53	126



TABLE 9. *Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			0-2,499			2,500-9,999			10,000-24,999			25,000-49,999			50,000-99,999			100,000-249,999			500,000 +			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	12	5	17	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	11	5	16	-	-	-
With other forms of syphilis	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
With other infectious diseases	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3	-	-	-
Alcoholic psychoses	35	13	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	13	45	-	-	-
Traumatic psychoses	5	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	5	-	-	-
With cerebral arteriosclerosis	145	137	282	2	2	4	1	1	2	-	-	-	3	-	-	1	-	-	1	-	-	136	136	272	1	-	-
With other disturbances of circulation	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
With convulsive disorders (epilepsy)	5	3	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	3	8	1	-	-
Senile psychoses	5	6	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	6	11	-	-	-
Involutional psychoses	11	16	27	-	-	-	-	-	-	-	-	-	2	1	3	-	-	-	-	-	-	9	15	24	-	-	-
Due to other metabolic diseases, etc.	3	6	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	6	9	-	-	-
Due to new growth	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-
With organic changes of nervous system	8	4	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	4	12	-	-	-
Psychoneuroses	1	6	7	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	5	6	-	-	-
Manic-depressive psychoses	10	27	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	26	36	-	-	-
Dementia praecox	43	32	75	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	42	32	74	-	-	-
Paranoia and paranoid conditions	4	9	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	9	13	-	-	-
With mental deficiency	6	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	1	7	-	-	-
Undiagnosed psychoses	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	4	-	-	-
Without psychoses	54	27	81	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	50	25	75	-	-	-
Total	353	298	661	2	-	2	1	1	2	-	1	1	9	1	10	3	-	3	3	1	4	330	292	622	5	2	7

TABLE 10. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Dependent			Marginal			Com- fortable	Unknown			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M. F. T.	M.	F.	T.	
With syphilitic meningo- encephalitis	12	5	17	1	—	1	10	3	13	—	—	1	2	3
With other forms of syphilis	1	1	2	—	—	—	1	—	1	—	—	—	1	1
With other infectious diseases	1	2	3	—	1	1	1	1	2	—	—	—	—	—
Alcoholic psychoses	35	13	48	2	2	4	27	11	38	—	—	6	—	6
Traumatic psychoses	5	—	5	1	—	1	3	—	3	—	—	1	—	1
With cerebral arteriosclerosis	145	137	282	47	34	81	66	74	140	1	—	31	29	60
With other disturbances of circulation	1	2	3	—	1	1	1	1	2	—	—	—	—	—
With convulsive disorders (epilepsy)	5	3	8	2	—	2	3	1	4	—	—	—	2	2
Senile psychoses	5	6	11	—	1	1	5	3	8	—	—	—	2	2
Involutional psychoses	11	16	27	1	—	1	8	16	24	1	—	1	—	1
Due to other metabolic dis- eases, etc.	3	6	9	—	—	—	2	5	7	—	—	1	1	2
Due to new growth	—	1	1	—	—	—	—	1	1	—	—	—	—	—
With organic changes of nerv- ous system	8	4	12	2	—	2	6	3	9	—	—	—	1	1
Psychoneuroses	1	6	7	—	—	—	1	6	7	—	—	—	—	—
Manic-depressive psychoses	10	27	37	1	4	5	8	21	29	—	—	1	2	3
Dementia praecox	43	32	75	10	3	13	30	27	57	—	—	3	2	5
Paranoia and paranoid con- ditions	4	9	13	—	1	1	4	8	12	—	—	—	—	—
With mental deficiency	6	1	7	3	1	4	3	—	3	—	—	—	—	—
Undiagnosed psychoses	3	—	3	—	—	—	2	—	2	—	—	1	—	1
Without psychoses	54	27	81	11	6	17	38	18	56	—	—	5	3	8
Total	353	298	651	81	54	135	219	199	418	2	—	51	45	96

TABLE 11. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Abstinent			Temperate			Intemperate			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo- encephalitis	12	5	17	—	2	2	4	—	4	4	3	7	4	—	4
With other forms of syphilis	1	1	2	1	—	1	—	—	—	—	—	—	—	1	1
With other infectious dis- eases	1	2	3	—	1	1	—	—	—	1	—	1	—	1	1
Alcoholic psychoses	35	13	48	—	—	—	—	—	—	35	13	48	—	—	—
Traumatic psychoses	5	—	5	1	—	1	2	—	2	1	—	1	1	—	1
With cerebral arterio- sclerosis	145	137	282	21	73	94	42	25	67	36	5	41	46	34	80
With other disturbances of circulation	1	2	3	—	1	1	1	—	1	—	1	1	—	—	—
With convulsive disorders (epilepsy)	5	3	8	3	1	4	1	1	2	1	—	1	—	1	1
Senile psychoses	5	6	11	—	3	3	2	1	3	1	—	1	2	2	4
Involutional psychoses	11	16	27	2	5	7	7	8	15	1	2	3	1	1	2
Due to other metabolic diseases, etc.	3	6	9	1	3	4	1	—	1	—	2	2	1	1	2
Due to new growth	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
With organic changes of nervous system	8	4	12	2	2	4	3	1	4	3	—	3	—	1	1
Psychoneuroses	1	6	7	—	3	3	1	2	3	—	1	1	—	—	—
Manic-depressive psy- choses	10	27	37	2	12	14	3	10	13	4	4	8	1	1	2
Dementia praecox	43	32	75	10	12	22	21	15	36	11	3	14	1	2	3
Paranoia and paranoid conditions	4	9	13	—	2	2	2	3	5	2	—	2	—	4	4
With mental deficiency	6	1	7	1	1	2	5	—	5	—	—	—	—	—	—
Undiagnosed psychoses	3	—	3	—	—	—	1	—	1	1	—	1	1	—	1
Without psychoses	54	27	81	8	5	13	13	10	23	29	9	38	4	3	7
Total	353	298	651	52	127	179	109	76	185	130	43	173	62	52	114

TABLE 12. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses*

[illegible]

TABLE 13. *Mental Disorders of All Admissions, All Discharges, All Deaths, 1938, All Cases in Residence and All Cases Out on September 30, 1938, by Status of Admission and Sex*

MENTAL DISORDERS	ALL ADMISSIONS				ALL DISCHARGES				ALL DEATHS				RESIDENT POPULATION				PATIENTS OUT ON VISIT, ETC				
	First Admissions		Readmissions		First Admissions		Readmissions		First Admissions		Readmissions		First Admissions		Readmissions		First Admissions		Readmissions		
	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	
<i>Psychoses Due to or Associated with Infection:</i>																					
Syphilis of the Central Nervous System:																					
Meningo-encephalitic type (general paresis)	12	5	17	-	-	7	5	12	1	2	3	30	12	42	8	6	14	4	4	8	-
Meningo-vascular type (cerebral syphilis)	1	-	1	-	-	1	1	2	-	-	-	-	1	2	3	2	1	3	-	-	-
Other types	-	1	1	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	-
With epidemic encephalitis	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
With other infectious disease	1	2	3	-	-	-	1	1	-	1	1	-	2	2	-	-	-	1	-	1	-
<i>Psychoses Due to Intoxication:</i>																					
Due to Alcohol:																					
Pathological intoxication	-	1	1	-	-	-	2	2	-	-	1	1	-	-	-	-	-	-	-	-	-
Delirium tremens	2	2	4	-	-	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Korsakow's psychosis	13	6	19	2	1	3	8	3	11	2	4	1	16	12	28	7	1	8	4	3	7
Acute hallucinosis	9	-	9	6	-	6	18	1	10	9	-	9	17	1	18	5	1	6	1	-	1
Other types	11	4	15	8	-	8	10	3	13	6	1	7	48	18	66	32	4	36	5	1	6
Due to Drugs or Other Exogenous Poisons:																					
Due to opium and derivatives	-	-	-	-	-	-	-	1	1	-	2	2	-	-	-	1	1	-	-	-	-
Due to other drugs	-	-	-	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
<i>Psychoses Due to Trauma:</i>																					
Traumatic delirium	-	-	-	-	-	-	-	1	1	-	-	-	1	-	1	-	-	-	-	-	-
Post-traumatic personality disorders	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	3	-	3	-	-	-
Post-traumatic mental deterioration	3	-	3	-	-	-	-	-	1	-	1	-	3	-	3	1	-	1	1	-	1
Other types	2	-	2	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
<i>Psychoses Due to Disturbance of Circulation:</i>																					
With cerebral arteriosclerosis	145	137	282	15	24	39	51	43	94	8	8	16	138	146	284	17	27	44	22	18	40
With cardio-renal disease	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	1	1	1
Other types	1	1	2	-	-	-	-	1	1	-	-	1	-	1	-	-	-	-	-	-	-
<i>Psychoses Due to Convulsive Disorders (Epilepsy):</i>																					
Epileptic deterioration	1	1	2	6	1	7	1	1	2	3	-	3	-	3	5	7	12	-	1	1	3
Epileptic clouded states	4	1	5	1	-	1	1	1	2	2	-	2	-	5	6	11	7	6	13	1	1
Other epileptic types	-	1	1	-	-	-	-	1	1	-	1	-	1	-	1	-	-	-	-	-	-





TABLE 13-A. *Mental Disorders of Readmissions, 1938, by Sex*

MENTAL DISORDERS	READMISSIONS		
	M.	F.	T.
With epidemic encephalitis	1	—	1
Alcoholic psychoses	16	1	17
Due to drugs, etc.	—	1	1
With cerebral arteriosclerosis	15	24	39
With convulsive disorders (epilepsy)	7	1	8
Senile psychoses	1	1	2
Involuntional psychoses	1	10	11
Due to other metabolic diseases, etc.	1	1	2
With organic changes of nervous system	3	2	5
Psychoneuroses	3	3	6
Manic-depressive psychoses	13	43	56
Dementia praecox	34	22	56
Paranoia and paranoid conditions	3	3	6
With psychopathic personality	1	1	2
With mental deficiency	11	6	17
Without psychoses	28	15	43
Total	138	134	272

TABLE 14. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	TOTAL			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	8	7	15	1	3	4	2	3	5	5	1	6
With other forms of syphilis	1	1	2	1	—	1	—	1	1	—	—	—
With epidemic encephalitis	1	—	1	—	—	—	1	—	1	—	—	—
With other infectious diseases	—	1	1	—	1	1	—	—	—	—	—	—
Alcoholic psychoses	53	14	67	32	11	43	17	3	20	4	—	4
Due to drugs, etc.	—	3	3	—	1	1	—	1	1	—	1	1
Traumatic psychoses	4	1	5	3	—	3	1	1	2	—	—	—
With cerebral arteriosclerosis	59	51	110	12	6	18	20	16	36	27	29	56
With other disturbances of circulation	—	2	2	—	—	—	—	2	2	—	—	—
With convulsive disorders (epilepsy)	7	3	10	3	3	6	2	—	2	2	—	2
Senile psychoses	2	11	13	—	—	—	1	6	7	1	5	6
Involuntional psychoses	4	10	14	—	1	1	—	6	6	4	3	7
Due to other metabolic diseases, etc.	1	9	10	1	4	5	—	3	3	—	2	2
With organic changes of nervous system	5	7	12	—	1	1	3	2	5	2	4	6
Psychoneuroses	8	8	16	6	6	12	1	—	1	1	2	3
Manic-depressive psychoses	44	106	150	20	48	68	22	48	70	2	10	12
Dementia praecox	23	21	44	—	1	1	18	11	29	5	9	14
Paranoia and paranoid conditions	3	14	17	1	2	3	1	8	9	1	4	5
With psychopathic personality	5	9	14	3	3	6	1	5	6	1	1	2
With mental deficiency	15	15	30	9	10	19	5	5	10	1	—	1
Undiagnosed psychoses	3	—	3	—	—	—	1	—	1	2	—	2
Without psychoses	76	39	115	—	—	—	—	—	—	—	—	—
Total	322	332	654	92	101	193	96	121	217	58	71	129

TABLE 15. *Hospital Residence During This Admission of First Admissions Discharged During 1938*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	7	5	12	.84	1.00	.91
With other forms of syphilis	1	1	2	12.50	.71	6.60
With other infectious diseases	—	1	1	—	.04	.04
Alcoholic psychoses	38	11	49	1.71	.94	1.54
Due to drugs, etc.	—	1	1	—	.04	.04
Traumatic psychoses	3	1	4	.12	.20	.14
With cerebral arteriosclerosis	51	43	94	.31	.29	.30
With other disturbances of circulation	—	2	2	—	.77	.77
With convulsive disorders (epilepsy)	2	3	5	.16	.06	.10
Senile psychoses	1	10	11	12.50	.96	2.00
Involuntional psychoses	3	6	9	.04	1.47	.99
Due to other metabolic diseases, etc.	1	9	10	.04	.45	.41
With organic changes of nervous system	4	6	10	.22	.52	.40
Psychoneuroses	2	6	8	3.81	.77	1.53
Manic-depressive psychoses	23	50	73	1.71	1.74	1.73
Dementia praecox	14	10	24	.51	1.73	1.02
Paranoia and paranoid conditions	1	8	9	1.50	2.92	2.76
With psychopathic personality	3	7	10	.64	3.14	2.39
With mental deficiency	3	6	9	6.22	7.41	7.01
Undiagnosed psychoses	3	—	3	.08	—	.08
Without psychoses	49	25	74	.07	.26	.13
Total	209	211	420	.92	1.24	1.08

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Mental Disorders

CAUSES OF DEATH	TOTAL			With syphilitic meningo-encephalitis		With other forms of syphilis		With other infectious diseases		Alcoholic psychoses		With cerebral arterio-sclerosis		With convulsive disorders (epilepsy)		Senile psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Infectious and Parasitic Diseases:</i>																		
Erysipelas.	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis of the respiratory system	10	9	19	—	1	1	—	1	1	—	2	—	—	—	—	1	1	1
Syphilis (non-nervous forms)	3	—	3	1	—	1	2	—	—	—	—	—	—	—	—	—	—	—
<i>Cancer and Other Tumors:</i>																		
Cancer and other malignant tumors	8	9	17	—	—	—	—	—	—	—	—	4	3	7	—	1	1	2
Tumor (non-cancerous)	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases:</i>																		
Diabetes	—	3	3	—	—	—	—	—	—	—	—	—	3	3	—	—	—	—
<i>Diseases of the Blood and Blood-Making Organs:</i>																		
Pernicious anemia	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Nervous System and Organs of Special Sense:</i>																		
Cerebral hemorrhage	4	3	7	—	—	—	—	—	—	—	—	3	3	6	—	—	—	—
Cerebral embolism and thrombosis	1	3	4	—	—	—	—	—	—	—	—	1	1	2	—	—	—	—
General paralysis of the insane	3	2	5	3	2	5	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Circulatory System:</i>																		
Pericarditis	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Chronic endocarditis (valvular disease)	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Diseases of the myocardium	9	6	15	1	—	1	—	—	—	—	—	5	3	8	—	1	—	1
Diseases of the coronary arteries and angina pectoris	6	6	12	—	—	—	—	—	—	—	—	3	3	6	—	—	—	—
Other diseases of the heart	40	40	80	2	—	2	—	—	—	1	2	3	33	29	62	2	3	5
Arteriosclerosis	2	9	11	—	—	—	—	—	—	—	—	2	7	9	—	—	1	1
<i>Diseases of the Respiratory System:</i>																		
Bronchopneumonia (including capillary bronchitis)	21	17	38	1	1	2	—	—	—	3	1	4	10	10	20	—	4	2
Lobar pneumonia	4	3	7	1	—	1	—	—	—	—	—	1	—	1	—	1	—	1
<i>Diseases of the Digestive System:</i>																		
Diseases of the buccal cavity and annexa and of the pharynx and tonsils (including adenoid vegetations)	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ulcer of the stomach and duodenum	3	—	3	—	—	—	—	—	—	1	—	2	—	2	—	—	—	—
Hernia, intestinal obstruction	—	1	1	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—
Peritonitis.	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Genito-Urinary System:</i>																		
Nephritis (acute, chronic and unspecified).	1	—	1	—	—	—	—	—	—	1	—	1	—	1	—	—	—	—
Calculi of the urinary passages	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Skin and Cellular Tissue:</i>																		
Violent and Accidental Deaths:																		
Suicide	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Accidental poisoning	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other external causes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	123	118	241	9	4	13	2	—	2	—	1	1	67	65	132	1	—	1
										8	3	11				8	9	17



TABLE 16. Causes of Death of Patients Classified with Reference to Principal Mental Disorders — Concluded

CAUSES OF DEATH	Involuntal psychoses		Due to other metabolic diseases, etc.		With organic changes of nervous system		Manic-depressive psychoses		Dementia praecox		Paranoia and paranoid conditions		With psychopathic personality		With mental deficiency		Undiagnosed psychoses	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Infectious and Parasitic Diseases:</i>																		
Erysipelas . . . . .	-	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-
Tuberculosis of the respiratory system . . . . .	-	-	-	-	-	-	-	1	1	4	5	9	-	-	3	-	-	-
Syphilis (non nervous forms) . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cancer and Other Tumors:</i>																		
Cancer and other malignant tumors . . . . .	-	-	-	-	-	-	-	-	1	2	4	-	-	1	-	-	-	-
Tumor (non-cancerous) . . . . .	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	-	-	-
<i>Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases:</i>																		
Diabetes . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Blood-Making Organs:</i>																		
Pernicious anemia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Nervous System and Organs of Special Sense:</i>																		
Cerebral hemorrhage . . . . .	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Cerebral embolism and thrombosis . . . . .	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-
General paralysis of the insane . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Circulatory System:</i>																		
Pericarditis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chronic endocarditis (valvular disease) . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diseases of the myocardium . . . . .	-	-	-	-	-	-	2	-	2	-	2	2	-	-	-	-	-	-
Diseases of the coronary arteries and angina pectoris . . . . .	-	-	-	-	-	-	2	2	4	-	1	1	-	-	-	1	-	-
Other diseases of the heart . . . . .	-	-	-	-	-	-	2	2	2	3	5	-	-	-	-	1	-	-
Arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Respiratory System:</i>																		
Bronchopneumonia (including capillary bronchitis) . . . . .	-	1	1	-	1	-	-	1	1	-	1	1	-	-	-	-	-	-
Lobar pneumonia . . . . .	-	-	-	-	-	-	-	1	2	3	-	-	-	-	-	-	-	-
<i>Diseases of the Digestive System:</i>																		
Diseases of the buccal cavity and annexa and of the pharynx and tonsils (including adenoid vegetations) . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ulcer of the stomach and duodenum . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Hernia, intestinal obstruction . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peritonitis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Genito-Urinary System:</i>																		
Nephritis (acute, chronic and unspecified) . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calculus of the urinary passages . . . . .	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-
<i>Diseases of the Skin and Cellular Tissue:</i>																		
Violent and Accidental Deaths:																		
Suicide . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Accidental poisoning . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other external causes . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Total . . . . .	-	1	1	3	3	6	2	2	-	2	10	17	27	-	4	1	1	1

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses

PSYCHOSES	TOTAL			20-24 years		25-29 years		30-34 years		35-39 years		40-44 years		45-49 years	
	M. F. T.			M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	9	4	13	-	-	-	1	-	-	-	-	1	4	1	5
With other forms of syphilis	2	1	3	-	-	-	-	-	-	-	-	-	1	1	1
With other infectious diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	8	3	11	-	-	-	-	-	-	1	1	1	1	1	1
With cerebral arteriosclerosis	67	65	132	-	-	-	-	1	1	-	-	-	-	-	-
With convulsive disorders (epilepsy)	1	8	9	-	-	-	1	-	-	-	-	-	-	-	-
Senile psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Involutional psychoses	8	1	9	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	3	3	6	-	-	-	-	1	1	-	-	-	1	1	2
With organic changes of nervous system	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	6	11	17	-	-	-	1	2	2	1	1	3	2	2	2
Dementia praecox	10	17	27	1	-	1	-	1	1	2	2	2	2	2	4
Paranoia and paranoid conditions	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	2	1	3	-	-	-	-	1	1	-	-	-	-	-	-
With mental deficiency	4	1	5	-	-	-	1	-	-	2	2	1	-	-	-
Undiagnosed psychoses	1	-	1	-	-	-	-	-	-	-	-	1	-	-	-
Total	123	118	241	1	-	1	4	1	5	3	4	7	7	2	9

PSYCHOSES	50-54 years		55-59 years		60-64 years		65-69 years		70-74 years		75-79 years		80-84 years		85 years and over	
	M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	F. T.
With syphilitic meningo-encephalitis	1	-	1	-	2	2	-	-	-	1	-	-	-	-	-	-
With other forms of syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	-	-	-	1	-	1	3	3	1	1	1	-	-	-	-	-
With cerebral arteriosclerosis	1	1	2	3	6	9	13	10	23	15	13	28	8	9	17	5 8 13
With convulsive disorders (epilepsy)	-	-	-	-	-	-	1	1	2	1	5	6	-	1	1	2
Senile psychoses	-	-	-	-	-	-	-	-	-	-	4	2	6	-	-	-
Involutional psychoses	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	-	-	-	2	2	4	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	2	1	3	2	3	5	2	4	6	-	-	-	1	1	-	-
Dementia praecox	1	1	2	1	3	4	2	1	1	1	2	-	-	-	-	-
Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	4	9	8	12	20	19	16	35	18	21	39	20	17	37	7 8 15

TABLE 18. Total Duration of Hospital Life During All Admissions of Patients Dying in Hospital Classified According to Principal Psychoses

PSYCHOSES	Total			Less than 1 month		1-3 months		4-7 months		8-12 months		1-2 years		3-4 years	
	Total			M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	9	4	13	-	-	-	3	2	2	1	1	2	1	-	-
With other forms of syphilis	2	2	4	-	-	-	-	-	1	-	-	-	3	-	-
With other infectious diseases	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	8	3	11	1	2	3	1	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	67	132	201	11	31	42	12	21	33	5	3	8	11	12	23
With convulsive disorders (epilepsy)	1	-	1	-	-	-	-	-	-	-	-	-	-	1	2
Senile psychoses	8	9	17	3	1	4	-	-	-	-	-	-	1	4	5
Involutional psychoses	1	1	2	-	-	-	-	-	-	-	-	-	-	2	2
Due to other metabolic diseases, etc.	3	3	6	2	1	3	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	2	2	4	-	-	-	2	-	-	-	-	-	-	-	-
Manic-depressive psychoses	3	3	6	-	-	-	-	-	-	-	-	-	-	-	-
Dementia praecox	6	11	17	-	2	2	-	-	-	-	-	-	2	2	4
Paranoia and paranoid conditions	10	17	27	-	1	1	-	-	-	-	-	-	-	1	1
With psychopathic personality	2	3	5	-	-	-	-	1	-	-	-	-	-	-	-
With mental deficiency	4	1	5	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	1	-	1	-	-	-	1	-	-	-	-	-	1	-	-
Total	123	118	241	26	19	45	19	22	41	7	5	12	17	20	37

PSYCHOSES	5-6 years			7-8 years		9-10 years		11-12 years		13-14 years		15-19 years		20 years and over	
	Total			M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.		M. F. T.	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	1	-	1	-	1	1	-	1	-	-	-	-	-	-	-
With other forms of syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1
With cerebral arteriosclerosis	2	2	4	1	1	2	-	1	1	1	1	1	-	1	1
With convulsive disorders (epilepsy)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	1	1	2	-	-	-	1	-	-	-	-	-	-	-	-
Involutional psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dementia praecox	-	2	2	1	2	3	-	1	1	2	-	-	-	-	-
Paranoia and paranoid conditions	-	2	2	1	1	2	-	-	-	-	-	-	1	4	5
With psychopathic personality	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4	9	13	3	4	7	4	2	6	3	3	6	6	4	10

TABLE 19. *Average Length of Hospital Residence During the Present Admission of All First Admissions in Residence on September 30, 1938*

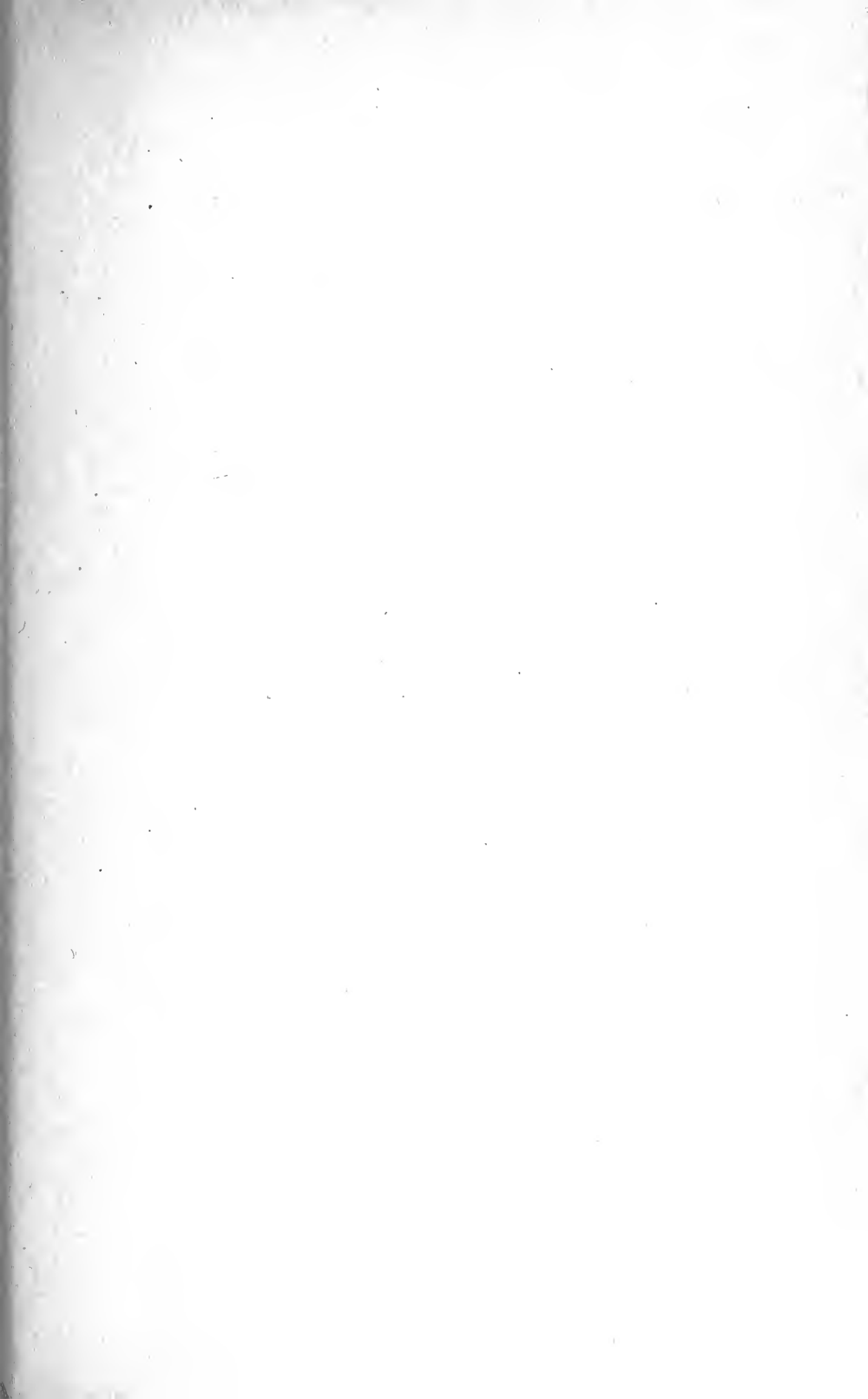
PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	30	12	42	6.69	6.07	6.51
With other forms of syphilis . . . . .	1	3	4	7.50	10.14	9.48
With epidemic encephalitis . . . . .	1	—	1	1.50	—	1.50
With other infectious diseases . . . . .	—	2	2	—	3.50	3.50
Alcoholic psychoses . . . . .	81	31	112	8.25	9.84	8.69
Traumatic psychoses . . . . .	4	—	4	11.73	—	11.73
With cerebral arteriosclerosis . . . . .	138	146	284	2.26	2.74	2.51
With other disturbances of circulation . . . . .	1	—	1	.44	—	.44
With convulsive disorders (epilepsy) . . . . .	7	8	15	8.63	9.37	9.02
Senile psychoses . . . . .	6	32	38	4.82	6.46	6.20
Involuntional psychoses . . . . .	11	25	36	3.83	4.43	4.24
Due to other metabolic diseases, etc. . . . .	2	1	3	2.00	2.50	2.16
With organic changes of nervous system . . . . .	17	11	28	4.19	2.21	3.41
Psychoneuroses . . . . .	3	5	8	5.83	1.66	3.22
Manic-depressive psychoses . . . . .	76	158	234	6.24	7.35	6.99
Dementia praecox . . . . .	190	206	396	13.65	16.36	15.06
Paranoia and paranoid conditions . . . . .	32	117	149	6.55	8.27	7.90
With psychopathic personality . . . . .	—	4	4	—	11.25	11.25
With mental deficiency . . . . .	31	32	63	14.72	11.43	13.05
Without psychoses . . . . .	7	4	11	.44	.44	.44
Total . . . . .	638	797	1,435	8.15	8.98	8.61

TABLE 19A. *Average Length of Hospital Residence During the Present Admission of All Readmissions in Residence on September 30, 1938*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	8	6	14	7.25	5.00	6.28
With other forms of syphilis . . . . .	2	1	3	4.50	17.50	8.50
With epidemic encephalitis . . . . .	1	—	1	1.50	—	1.50
Alcoholic psychoses . . . . .	44	6	50	9.06	8.83	9.04
Due to drugs, etc. . . . .	2	—	2	5.00	—	5.00
Traumatic psychoses . . . . .	4	—	4	16.00	—	16.00
With cerebral arteriosclerosis . . . . .	17	27	44	2.38	2.24	2.29
With convulsive disorders (epilepsy) . . . . .	12	13	25	9.00	7.57	8.26
Senile psychoses . . . . .	2	3	5	3.00	9.16	6.70
Involuntional psychoses . . . . .	3	16	19	2.16	9.06	7.97
Due to other metabolic diseases, etc. . . . .	2	5	7	4.00	7.90	6.78
With organic changes of nervous system . . . . .	7	3	10	6.50	3.16	5.50
Psychoneuroses . . . . .	2	1	3	2.00	.50	1.50
Manic-depressive psychoses . . . . .	72	147	219	7.65	7.73	7.70
Dementia praecox . . . . .	169	210	379	13.87	14.16	14.03
Paranoia and paranoid conditions . . . . .	12	44	56	7.33	9.77	9.25
With psychopathic personality . . . . .	6	11	17	7.50	10.22	9.26
With mental deficiency . . . . .	41	48	89	8.28	7.83	8.03
Without psychoses . . . . .	1	3	4	.50	.50	.50
Total . . . . .	407	544	951	10.14	10.13	10.13

TABLE 20. *Family Care Statistics for Year Ended September 30, 1938*

	Males	Females	Total
Remaining in Family Care September 30, 1937 . . . . .	—	6	6
Admitted to Family Care During the Year . . . . .	—	1	1
Whole Number of Cases within the Year . . . . .	—	7	7
Discharged from Family Care within the Year: . . . . .	—	5	5
Discharged Outright from Family Care . . . . .	—	5	5
Remaining in Family Care September 30, 1938 . . . . .	—	2	2
Average Daily Number in Family Care During Year: . . . . .	—	4.54	4.54
Supported by State . . . . .	—	2	2





The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1939

THE NINETY-NINTH ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



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EAST GARDNER, MASS.

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, Assistant Physician

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### TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council:*

The Board of Trustees of the Boston State Hospital respectfully submit the Annual Report for the year 1939, and make the following recommendations:—

(a) A tunnel should be provided under Morton Street at as early a date as possible. The crossing of Morton Street by the patients is a constant hazard to them and a constant source of worry to the administration of the hospital. Tunnels should also be provided between the various buildings. These tunnels would be of tremendous help during the winter months and would prevent the exposure of the patients to bad weather conditions.

(b) There is no overcrowding of the institution and this is mainly due to the efficient administration and enthusiasm of the medical staff in returning patients to their homes. The C and D Buildings are not housing patients at the present time whereas they are equipped to house 356 patients. These buildings, however, should be repaired and placed in good condition in case it may be necessary to use them at any future date.

(c) The old electric wiring in the C, D, M, N, and R Buildings should be replaced without delay. This old wiring is a serious fire hazard. It has been responsible for a recent fire in one of these buildings.

(d) The overhead electric power lines came down during the hurricane with the result that the West Group was in darkness. It is possible that these lines may come down again in another violent storm.

(e) The brook, known as part of Stony Brook, is an eyesore, is unsanitary, and breeds mosquitoes. During the spring of the year when the waters are high, it is a dangerous hazard for the patients. Unpleasant odors also come from this brook. The brook should be covered.

(f) A large auditorium should be provided in the West Group for recreational activities. These recreational activities have been built up extensively in the past three years. The small auditorium in the East Group is entirely inadequate. Such a large auditorium would be a great boon to the hospital in providing recreational activities for a much larger number of patients.

The Board of Trustees is appreciative of the intensive and periodical supervision on the part of the Commissioner, Dr. Clifton T. Perkins, and his assistants.

During the year 1939, no destructive criticism of any kind has been directed against the administration of the hospital. On the other hand commendation has come from several responsible sources.

The relatives of the patients have constantly expressed their appreciation of the efforts made by all concerned to insure care and comfort for the patients.

Following is the detailed report of Dr. Harold F. Norton, Superintendent.

Respectfully submitted,

ALEXANDER M. SULLIVAN  
 JOSEPHINE E. THURLOW  
 JOSEPH J. CARDILLO

THOMAS D. RUSSO  
 HARRY B. BERMAN  
 GERTRUDE A. MACDONNELL

### REPORT OF THE SUPERINTENDENT

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1939, and the fiscal year ending November 30, 1939. Founded by the City of Boston in 1839, this marks the completion of its one hundredth year as a hospital for mental illness, and the thirty-first year of its history as a state institution.

#### MOVEMENT OF POPULATION

The census of the hospital on September 30, 1938, was as follows: in the wards, men, 1,045; women, 1,341; total, 2,386. There were admitted during the year 496 men and 579 women, a total of 1,075. There were discharged to the community 361 men and 393 women, a total of 754. Twelve men and 9 women were transferred to other institu-

tions. There were 302 deaths during the year, 130 men and 172 women. Thus, there were remaining on the books on September 30, 1939, 2,651 patients, of which number 2,322 were residing in the hospital.

#### PERSONNEL

During the year the following changes were made in the staff of the hospital:

John Ficicchy, M.D., left the service as Assistant Physician (Temporary) on February 26, 1939.

Owen C. Mullaney, M.D., who was granted a leave of absence, returned to duty on February 27, 1939, and left the service as Assistant Physician on July 31, 1939.

I. Paley Rubin, M.D., left the service as Senior Physician on April 15, 1939.

N. Anthony Biechieri, M.D., was promoted to Senior Physician on April 16, 1939.

John R. Gately, M.D., was appointed Assistant Physician on June 1, 1939, and left the service on July 15, 1939.

John J. Slattery, M.D., left the service as Director of Clinical Psychiatry on June 21, 1939.

Nathaniel Showstack, M.D., was appointed Assistant Physician on July 20, 1939, and left the service on July 26, 1939.

Arthur W. Lyons, M.D., was appointed Assistant Physician on August 7, 1939, and left the service on September 30, 1939.

Dorothy E. Donley, M.D., left the service as Senior Physician on October 1, 1939.

Charles S. Mullin, Jr., M.D., Assistant Physician, was granted a leave of absence for one year beginning October 1, 1939.

Margaret R. Simpson, M.D., Senior Physician, transferred to Foxborough State Hospital on October 31, 1939.

Michael A. Grassi, M.D., was appointed Assistant Physician (Temporary) on October 2, 1939.

John M. Hill, M.D., was appointed Assistant Physician on October 2, 1939.

Louis S. Chase, M.D., was promoted from Assistant Physician to Senior Physician on October 2, 1939.

William J. Clauser, M.D., was appointed Assistant Physician on October 2, 1939.

Peter P. Gudas, M.D., was promoted from Assistant Physician to Senior Physician on October 25, 1939.

Ernst Schmdhofer, M.D., was appointed Assistant Physician on November 20, 1939.

Ralph S. Banay, M.D., was appointed Director of Clinical Psychiatry on November 15, 1939.

#### NEURO-PSYCHIATRIC SERVICE

This branch of the institution has made marked progress during the year. Stress is being laid in several directions, *i.e.*, the clinical study of the patient masses, clinical study of the individual patient, revaluation of each patient's problems from socio-economic, psychological, hereditary, environmental, and psychopathological points of view, with subsequent attempts to rehabilitate the patient by use of mass therapy and individual psychotherapy. These failing, more dynamic measures are utilized in the form of metrazol, insulin, narcosis, etc. Where indicated, other pharmacotherapeutic measures are used, as in vitamin deficiency states, toxic states, and such. This intensive therapeutic campaign has resulted in the accumulation of valuable facts relative to the proper methods of treating patients individually and in groups. Although individual therapy is necessary in many instances, it must always be utilized with the full knowledge as to its limitations and that from a practical and economic point of view, a type of therapy must be incorporated into our armamentarium, which treats not the isolated patient but rather the total patient population. It is this latter procedure, *i.e.*, mass therapy, which has been provocative of the rather startling results which have been obtained in this institution in the past three and one-half years. This mass therapeutic program has taken the facilities of the hospital and molded them into a vast machine wherein the sole object is the rehabilitation of the entire patient population — the getting of as many of them well as is possible and the returning of them to their respective communities as soon as possible. In this program, no patient is forgotten — no patient is neglected — and all have equal chances for treatment in this respect. Those who can do so, recover with a rapidity which is dependent only upon their individual resources.

Staff meetings have been held regularly during the year. The Psychopathological meetings are held four times each week — Monday, Tuesday, Wednesday, and Satur-

day, from 11.00 A.M. to 12.30 P.M. Each Thursday from 11.00 A.M. to 12.30 P.M. a Clinical-Pathological Conference is held in the pathological laboratory. Each Thursday and Friday morning from 9.00 to 10.00 A.M., a Therapeutic Staff Meeting is held. Every Friday from 11.00 A.M. to 12.00 noon, Neurological Rounds are conducted by Dr. L. Alexander. On Tuesday mornings from 9.00 A.M. to 10.00 A.M., Dr. H. McCarthy conducts a roentgenological conference. Every Thursday Dr. W. Damesheck conducts medical ward rounds. Every Tuesday and Friday morning a Luetic Clinic is held. Each Wednesday at noon a Staff Luncheon is held, at which time a prominent physician, not associated with the hospital, speaks. Every other Wednesday evening at 6.00 P.M. the Medical Journal Club meets, and at that time one member of the staff presents in concise form the important material from journals assigned to him.

In this manner a progressive effort is being made to develop a high level of interest in neuropsychiatry in this institution and in the neuropsychiatric advances made throughout the world. In line with this, two men were sent to the neuropsychiatric refresher course offered by the Department of Mental Health.

The consolidation of all of the medical and surgical problems into one unit (tuberculosis being excepted) has resulted in a much more efficient handling of these problems. Three and one-half years ago there were an average daily population of bed patients of 275+. Last year that average had dropped to 81.16. The reasons for this are several: 1. When all of the physically ill patients are consolidated in one unit their treatment is more efficient, more thorough, and the resulting rapidity of physical recovery correspondingly greater. 2. Patients becoming ill are so diagnosed earlier and upon being transferred to the Infirmary Service receive earlier intensive care, thereby shortening the length of illness. 3. Individuals who are bed patients and others who are potentially so receive an excellent dietary, high in all nutritional requisites, thereby making them less prone to become so physically debilitated as to necessitate prolonged bed care. 4. Patients who are feeble but are capable of safely exercising, are given careful calisthenics, whereby their physical stamina and resistance to disease is increased.

Those medical and surgical problems which do exist are immediately cared for by the Infirmary Staff, and when necessary by a highly competent group of consultants. Whenever there is the slightest question of what constitutes proper medical or surgical care, a consultant is requested and his advice followed.

The tuberculosis patients are cared for in a unit especially provided for this problem, the O Building. In this unit, particular attention is paid to the problem of tuberculosis and to the best methods of handling it. As a result of this intensified study, these patients make recoveries from their tuberculosis, and are able to be returned to their respective services for specific psychiatric therapy.

On the Infirmary Service, during the year, in addition to ordinary routine medical and surgical work, 97 surgical operations were performed.

#### DENTAL SERVICE

The dental activities at the hospital have been conducted under the direction of Dr. Kaen A. Noonan. The dental problems are extremely varied but nevertheless are being adequately handled. Each patient in the hospital has a tooth brush and by means of drills has been taught to care properly for his teeth. In addition, where patients are unable to do this, the teeth are regularly cared for by the nursing service and by a dental hygienist. This latter individual also conducts a program of prophylaxis which has been quite successful in decreasing oral infections and in keeping scale at a minimum. Supervising the entire program is the dentist, who works from his central office. In this office he handles all of the dental work requiring his personal attention.

During the year the following work was performed:

Examinations . . . . .	5,882	Fillings . . . . .	473
Prophylaxis . . . . .	3,653	Treatments . . . . .	259
Extractions . . . . .	1,228	Restorations . . . . .	74

#### PSYCHOLOGICAL SERVICE

This department, which formerly consisted of one psychometrist for many years, now is comprised of two individuals, both psychometrists. Although, for the proper functioning of this department, there should be, in addition, a psychologist, this position has not been able as yet to be obtained. In spite of this lack, two students from Harvard Medical School have received some practical experience by actual testing of patients. It is

very probable that this number of students will be increased in future years. In addition to regular testing, material on several problems is being collected in this department, *i.e.*, personality studies of alcoholic patients, personality studies of suicidal patients, personality studies on involutional patients, personality studies on juvenile delinquents, long range changes in the I.Q. of problem school children, comparison of the Stanford Binet I.Q. and Bellevue Intelligence Test. These studies are conducted and controlled by Dr. P. G. Schube. The statistics of the routine work done by this Department are as follows:

1. Hospital Patients:

Number of patients seen . . . . .	534
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*Tests given*

Binet tests . . . . .	353
Bellevue tests	
Verbal . . . . .	108
Performance . . . . .	77
Bernreuters . . . . .	138
Bells . . . . .	175
Mare and Foal Test . . . . .	35
Knox Cube Imitation . . . . .	24
Porteus Mazes . . . . .	41
Seguin-Goddard Formboard . . . . .	37
Healy Pictorial Completion . . . . .	64
Otis Intelligence Test . . . . .	1
Army Alpha . . . . .	2
Army Beta . . . . .	2
L. V. . . . .	8

Total number of tests given . . . . .	1,065
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2. Delinquents (Juvenile):

Number of delinquents tested . . . . .	139
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*Tests given*

Stanford Binets . . . . .	137
Bernreuters . . . . .	21
Bells . . . . .	19
Bellevues	
Verbal . . . . .	5
Performances . . . . .	4
Healy Pictorial Completion . . . . .	2
Sequin Goddard Formboard . . . . .	1
Mare and Foal Test . . . . .	1

Total number of tests given . . . . .	190
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3. School Clinic:

Number of children tested . . . . .	417
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(a) Somerville District, 256

(b) Everett District, 161

Each of these children received a Stanford Binet Intelligence Test, a physical examination, a short psychiatric examination, and school tests. On many of them special Social Service investigations were carried out.

#### SOCIAL SERVICE DEPARTMENT

The Social Service Department was established in this hospital on July 1, 1913, with the engagement of one social worker, "who, in close co-operation with the physicians, searched out the varied needs of the patients and their families, and seeks to furnish help in ways as various as the situations which demand it." During the first year, 271 cases were referred and 922 visits made. In the subsequent 26 years, this department has increased until it consists of five workers. It is now under the supervision of Mrs. Lillian S. Irvine, Head Social Worker. The only vacancy occurring during the year was filled by the appointment of Miss Margaret Kelly, a graduate of Pembroke College, as Assistant Psychiatric Social Worker. During the year 1939, 1,857 new cases were referred to the Department, an increase of 703 over the previous year.

The work of the Social Service Department consists largely of obtaining histories and making full investigations, making investigations for trial visit, discharge or family care, and supervision of patients on trial visit. The Social Service worker interviews the relatives of newly admitted patients to obtain a medical and social history and to obtain as complete a history as possible of the patient's early life, his heredity, and his environment, particular emphasis being placed on his previous personality and the onset and symptoms of his psychosis. The worker inquires about his financial status, and plans for his leaving the hospital when he is ready to do so. In 1914, this department obtained 35 histories; during the present year, it obtained 1,101.

When a patient has been admitted to this hospital for observation, or when he is a court case, the worker makes a full investigation and sees others besides the relatives. She goes out into the community to interview the school teacher, to obtain the school record, to secure work reports from employers, health history from the family physician and other hospitals, and the store of the patient's behavior from other relatives and friends. These histories and investigations are of primary importance to the psychiatrist in determining methods of treatment, and to both the psychiatrist and the social worker in making plans for the patient. The workers obtained an average of 3 histories a day for every day in the year.

While the patient is in the hospital, the social worker gives him personal service—calls his relatives, locates his clothing, stores his furniture, and visits him on the ward. When he is ready to leave the hospital, she makes a pre-visit investigation; she interviews his relatives, and if he cannot go to his own home, she tries to make plans for him—a convalescent home, a job, welfare, or old age assistance. He may be able to take care of himself with only a little help, or he may require close supervision. During the year, this department placed one man who had been a patient in the hospital for 50 years and one woman who had been a patient for 35 years, and applied for old age assistance for both of these patients. The man has a room in Boston but visits the hospital every day. The woman was somewhat skeptical about leaving the hospital, but when she was placed in a convalescent home with two former patients whom she had known in the hospital, she seemed quite contented.

One of the most difficult and at the same time the most fascinating duties of the Social Service is that of locating relatives. This is necessary, particularly when patients are on the Danger List or when plans are being made for their release to the community. It requires much effort and time to locate relatives or interested friends of a patient who has been in the hospital for many years and has had no visitors, but it is quite often possible to do so.

During the year, this department has had three voluntary social workers part time. Two of these were graduates of Emmanuel College and one was a graduate of Smith College School of Social Work. The latter was particularly interested in school clinic cases and obtained 175 histories in connection with the work of the clinic. Miss Leona Macdonnell also worked with the Department for three months during her summer vacation from Regis College. With the assistance of these workers, the Department obtained 1,101 histories and made 153 full investigations.

The following is a summary of Social Service cases for the year:

	<i>Male</i>	<i>Female</i>	<i>Total</i>
New Cases	948	909	1,857
Renewed Cases from Previous Years	186	218	404
Renewed Cases within the Year	111	166	277
Continued Cases from Previous Year	333	368	701
Closed during Year	1,129	1,241	2,370
Cases Continued to Following Year	449	420	869

#### PHYSICAL THERAPY DEPARTMENT

Prior to August 30, 1939, this department had functioned in conjunction with the X-Ray Department, the work of both units being performed by one individual who was listed as a Physiotherapist. The allocation of the position of X-Ray Technician was requested and approved, making it possible to employ a full time Physiotherapist. On August 28, 1939, Miss Rosalind M. Gibbs was employed in this capacity. She is a graduate of the Sargent School of Boston University.

From August 30, 1939, through September 30, 1939, which is the total period of active operation of this department, for the statistical year 1939, the following illnesses were treated:

Acne . . . . .	2	Muscular weakness and dystrophy . . . . .	1
Amputation . . . . .	1	Neuritis . . . . .	3
Anemia and Debility . . . . .	1	Pustules . . . . .	1
Catatonic with postural defects . . . . .	2	Radial paralysis . . . . .	1
Contracted hand . . . . .	3	Sacro-iliac . . . . .	1
Dermatitis . . . . .	1	Strain . . . . .	1
Epidermophytosis . . . . .	2	Traumatic knee . . . . .	1
Fractures . . . . .	8	Tubercular sinuses . . . . .	1
Hemiplegia . . . . .	3		
Total . . . . .			33

For this same period the following types of treatment were prescribed:

<i>Type of Treatment</i>	<i>No. of Treatments</i>	<i>Type of Treatment</i>	<i>No. of Treatments</i>
Autocondensation . . . . .	6	Capillary wave . . . . .	6
Exercise and muscle re-education . . . . .	67	Saturation . . . . .	15
Galvanism . . . . .	8	Sinusoidal . . . . .	30
Infra-red . . . . .	92	Ultra violet . . . . .	77
Massage . . . . .	82		
Total . . . . .			333

#### X-RAY DEPARTMENT

At the beginning of the year, the X-Ray Department was under the supervision of Mrs. Gertrude Moses. On July 28, 1939, she left the service of the hospital and on the same day her work was carried on by Mrs. Margaret Morrison. On September 16, 1939, she left the service, and on September 18, 1939, the position of X-Ray Technician having been created for this institution, Miss M. Claire Gagen was employed in this capacity.

The work of the X-Ray Department has consisted of X-Ray or fluoroscopic examinations of such patients and employees as are ordered by the staff physicians. The X-Ray plates are read once a week by Dr. H. J. McCarthy, consulting roentgenologist. In addition to X-Ray plates for suspected pathology, all employees working in direct contact with food or with patients having tuberculosis, are X-Rayed at regular intervals.

During the year there were:

X-Rays taken . . . . .	2,270	Patients X-Rayed . . . . .	1,534
Fluoroscopic Examinations . . . . .	19	Employees X-Rayed . . . . .	439

#### OCCUPATIONAL THERAPY DEPARTMENT

During this year several changes in the locations of Occupational Therapy shops have been made. The work in the A and B Buildings was discontinued on the wards and the small offices and shops closed. In the place of these arrangements, one large shop was opened on the third floor of the H Building and the patients from the A and B Buildings were sent to classes there. The shop for male patients in the J Building and the Weaving Shop in the H basement were also discontinued and the work centered in the big shop in the H Building. The female patients from A, B, G, and K Buildings and the male patients from B, G, H, I, and J Buildings attended classes in this large shop. The H-9 Occupational Therapy Shop is a large and attractive room and can accommodate 175 to 200 patients.

The shops in the L, P, and Q Buildings were also discontinued and one large shop was opened on the first floor of the East Patients' Cafeteria Building. This shop has two large rooms with a small entry-way for a library and the desk of the Physical Education worker. Patients from all of the buildings in the East Group (O Building excepted) attend classes twice a week. Gymnasium classes were organized and held in the East Chapel Auditorium instead of the East P Basement. The patients from each of the buildings attend classes twice a week.

Patients in O Building are visited once a week, the worker giving out books and magazines and organizing quiet games, such as cards, checkers, etc., among the patients.

The Art Classes formerly held in the Reception Building were also moved to the H-9 Occupational Therapy Shop. The small shop for the K patients was opened in that building and the sole work of this group has been the making of curtains for the various wards. The Furniture Painting and Refinishing Shop was moved from the H basement to the second floor of the West Centre Building, offering a lighter and better ventilated shop.

Shops in operation at the end of the year after changes were made are as follows:

Reception Building Basement—Female Reception Building patients.

K Building Curtain Shop—K patients.

H-9 Occupational Therapy Shop—A, B, and G female patients.

H-9 Occupational Therapy Shop—B, E, F, G, H, I, J male patients.

Furniture Painting and Refinishing Shop—G, H, I, J patients.

Art Classes—Male and female patients from West Group (H-9 Occupational Shop).

Gymnasium Classes, East Group Chapel Auditorium—All East Group patients with the exception of O Building.

East Occupational Therapy Shop—L, M, N, P, Q, R, S patients. Also working on respective wards.

The Boston State Hospital News, a monthly newspaper, was revived and seven numbers were issued during the year.

The Physical Education worker in the Occupational Therapy Department has attended the various recreational activities such as concerts, choral groups, etc., during the year, with the entire department on duty at the hospital dances, Field Days, and the large affairs. During the summer months, all work, with the exception of one small group, was held out of doors, with games and other recreational activities receiving the emphasis.

During the year 24,735 garments were mended; 15,723 pieces of patients' clothing marked; 1,461 key cords were made for the use of employees, and 3,862 miscellaneous articles made. 5,399 pieces of furniture were painted, refinished, and sent to the wards.

Following is a summary report of classes and attendance for the year:

Number of classes . . . . .	3,946
Total hours . . . . .	11,234
Total attendance . . . . .	92,366
Total different patients: in classes . . . . .	15,079
Total different patients: at recreation . . . . .	7,210
Total patients in: industrial placement . . . . .	802

#### PATHOLOGICAL LABORATORY

During the year the pathological laboratory has continued under the supervision of Dr. Naomi Raskin. She has working under her two technicians and these, from the point of view of the amount of work demanded and necessary for the efficient function of this department, are certainly inadequate in number. In spite of the undermanning of this very important part of the institution, the following work has been completed:

Autopsies . . . . .	129	Gastric content examinations . . . . .	5
Bacterial slide examinations . . . . .	530	Phenolsulphathalein tests . . . . .	2
Blood Counts: . . . . .		Sedimentation rate . . . . .	3
White . . . . .	1,437	Icteric indices . . . . .	6
Red . . . . .	1,455	Milk Analysis: . . . . .	
Hemoglobin estimations . . . . .	1,455	Cultures . . . . .	22
Differential . . . . .	1,437	Smears . . . . .	14
Blood sugars . . . . .	100	Guinea pig inoculations . . . . .	13
Urinalysis . . . . .	2,285	Van Der Bergh . . . . .	1
Non-protein nitrogen . . . . .	57	Spinal fluids . . . . .	441
Blood cultures . . . . .	9	Sputums . . . . .	226
Stool examinations . . . . .	50	Tissue work: . . . . .	
Reticulocyte count . . . . .	26	Frozen sections . . . . .	510
Cholesterols . . . . .	4	Celloidin sections . . . . .	933
Calcium . . . . .	3	Paraffin sections . . . . .	5,737
Bromides . . . . .	5	Blood grouping and matching . . . . .	15
Bleeding and clotting time . . . . .	3		

#### ELECTROCARDIOGRAPHIC DEPARTMENT

For the first six months of this year, this department was supervised by Miss Ruth Johnson. Subsequent to her leaving the department, her work was assumed by Dr. N. Anthony Biechieri. Electrocardiographic tracings are done upon staff request on any patients needing them. The file of tracings is forming a very valuable collection of electrical conductivity phenomena of the hearts of the patients at this institution. They number now well over one thousand and range from simple normal tracings through the entire gamut of cardiac pathology obtainable by the electrocardiograph.

#### ENGINEERING DEPARTMENT

This department has continued to function under the supervision of Mr. Thomas J. Henry, Chief Power Plant Engineer.

During the year the following improvements and installation of apparatus, etc., were made:

1. New muffler furnace in the laboratory.
2. Four radiators in West B Building.
3. New steam and return lines for new hot water tank in laundry.
4. New cafeteria in East Patients' dining room.
5. New water supply line in West F Building.
6. Two new radiators in West A Building.
7. Complete installation of new hot water tank in laundry..
8. New hot water heater in Canterbury Street farmhouse.
9. Two new radiators in West H Building.
10. New wash bowls in West I Building.
11. New toilets and sink in the East Occupational Shop.
12. New throttles in No. 3 pulverizer turbine and No. 2 heater pump.
13. Potato peeling machine in basement of East Chapel Building.
14. Poles for high tension wires and wires changed over from old poles.
15. Expansion joints in exhaust lines of all three turbo generators in powerhouse.
16. Five-inch auxiliary steam main over the boilers.
17. Elevator in Reception Building overhauled.
18. Soil line for lavatory in Recreation Field.
19. Five-inch elbow in heating main West I Building.
20. High tension underground cable between East L and East S Buildings.
21. Toilets in new field house on Recreation Field.
22. Replacement transformers in West Kitchen with new 25 KVA transformer and installed proper vent.
23. Washer in laundry.
24. Replacement of coils in water heating tanks of East and West Kitchens.
25. Showers in East O Building.
26. Showers in West B Building.
27. Laundry tray in West K Building.
28. Waste and water line for dental chairs in Reception Building.
29. Employees' cafeteria in East Employees' Dining Room.
30. Twenty street lights in West Group and connected with an automatic time clock.
31. Brake on extractor in laundry.
32. New friction clutch on the Troy dry tumbler.
33. Three thousand feet new high tension wire on pole lines.
34. Cafeteria in West A Building Patients' Dining Room.
35. Underground high tension cable, cutouts, and lightning arrestors put in for the Reception Building.
36. Powers thermostatic heating control in Superintendent's Home.
37. Group shower in West H Building.
38. Heating boiler and heating system connection at Assistant Superintendent's Home.
39. Flood lights in East Group near greenhouse.
40. Steam chest and governor valve put in the No. 2 pulverizer turbine.
41. Doughnut machine in West Kitchen.
42. Sinks in West Kitchen basement.
43. Blow-off line put in on all boilers in the powerhouse.
44. Frigidaire units in East Kitchen and bakery to replace old brine system in food boxes.
45. Rough piping in Assistant Superintendent's Home.

The usual maintenance work was also carried out. The boilers in the powerhouse were thoroughly cleaned and inspected by the State Inspector. The pulverizers were repaired and parts replaced as necessary. Pumps were overhauled and cleaned and the oil replaced from time to time. Main turbines were cleaned and packing replaced as necessary. Ice machine was repacked and the condensers were cleaned and made ready for winter and summer.

The power plant oil and coal consumption, water consumption, and electricity produced is as follows:

Oil consumed . . . . .	7,496,746 pounds
Coal consumed . . . . .	15,808,600 pounds
Water evaporated . . . . .	310,684,290 pounds
Electricity produced . . . . .	1,122,200 K.W.H.



## HYDROTHERAPY DEPARTMENT

The Hydrotherapy Department this year has been placed under the direct supervision of the nursing service and has been able, as a result of this change, to function more efficiently in the hydrotherapeutic treatment of the patient and in the training of the nursing personnel in the methods and value of properly regulated hydrotherapy. The department itself is immediately supervised by Miss Mary A. Bresnahan, R.N.

During the year Miss Bresnahan gave a course of eight lectures to the Attendant Nurses.

The following courses of lectures were given by Dr. Rebekah Wright, Hydrotherapist for the Department of Mental Health:

Nine lectures, with demonstrations, to Physicians.

Three lectures, with demonstrations, to Hydrotherapists.

Fourteen lectures, with demonstrations, to Head Nurses and Supervisors.

Six lectures, with demonstrations, to Attendant Nurses.

Six lectures, with demonstrations, to Harvard University Group of students of Physiotherapy.

There were 38 employees who received 119 pack lessons, a total of 410 hours.

The number of patients given tonic treatments was 68 and the number of treatments given was 4,392.

The number of patients in wet sheet packs, 270. The number of packs, 11,625, and the number of hours of packs, 37,193.23.

The number of patients in continuous baths, 329. The number of baths, 8,585, and the number of hours, 67,622.18.

## NURSING SERVICE

This service has continued to function under the guidance of Miss Mary Alice McMahon, R.N., Principal of the School of Nursing. The following is a census of the nursing service for the year ending September 30, 1939:

	Male	Female	Total
Superintendent of Nurses . . . . .	0	1	1
Assistant Superintendent of Nurses . . . . .	0	1	1
Supervisors — Chief Hospital . . . . .	1	1	2
Supervisors — Assistant (Days) . . . . .	2	10	12
Supervisors — Assistant (Nights) . . . . .	2	11	13
Head Nurses — Registered . . . . .	0	20	20
Head Nurses — Graduate . . . . .	0	1	1
Hydrotherapists . . . . .	2	6	8
Barbers . . . . .	12	15	27
Attendant Nurses . . . . .	111	182	293
<i>Psychiatric Nurses</i>			
Graduate Head Psychiatric Nurses . . . . .	0	16	16
Graduate Psychiatric Nurses . . . . .	0	2	2
Senior Psychiatric Nurses . . . . .	0	0	0
<i>Employed During Year</i>			
Assistant Superintendent of Nurses . . . . .	0	1	1
Registered Nurses . . . . .	1	56	57
Charge Attendants . . . . .	8	5	13
Hydrotherapists . . . . .	1	1	2
Barbers . . . . .	1	0	1
Physiotherapist . . . . .	0	1	1
Attendant Nurses . . . . .	92	150	242
<i>Left During Year</i>			
Assistant Superintendent of Nurses . . . . .	0	1	1
Registered Nurses . . . . .	1	55	56
Charge Attendant Nurses . . . . .	8	5	13
Hydrotherapists . . . . .	1	1	2
Head Graduate Psychiatric Nurses . . . . .	0	6	6
Physiotherapist . . . . .	0	1	1
Attendant Nurses . . . . .	105	171	276
<i>Classes</i>			
Classes for Registered Nurses . . . . .	0	28	28
Classes for Psychiatric Nurses . . . . .	0	0	0
Classes for Attendant Nurses . . . . .	110	118	228
Number of Attendant Nurses Taught . . . . .	259	435	694

## GENERAL OPERATIONS

*Fire Protection.* The training of the patients and personnel in the technics of proper conduct during a fire drill has resulted in especially efficient drills. These drills are conducted regularly twice a month and although are in charge of one of our own personnel, the fire protection engineer, they are carefully supervised and watched each time by a representative of the Boston Fire Department. The new fire escapes in the C, D, M, N, and P Buildings, which were completed in 1938, afford marked protection for patients in these buildings. The sprinkler systems in all buildings in which they are installed

are regularly checked for operation and the buildings are continuously scanned for possible fire hazards.

I think that it can be stated quite safely that at no time in the history of this institution have the patients been so well guarded against the hazards of fire.

*Food:* One of the most valuable accomplishments in this hospital has been the establishment of a proper dietary for the patients and employees. This has been accomplished in several ways. 1. The decrease in the number of dining rooms for serving food. 2. The decrease in the number of kitchens for serving food. 3. The insistence of good quality of raw food. 4. The insistence of careful and intelligent preparation of the raw food. 5. The utilization of one menu for the entire patient population and personnel. By these means, *i.e.*, centralization and proper management, both patients and employees are able to have a large, varied dietary, which is attractively prepared and highly satisfactory, both from an aesthetic and nutritional point of view. The primary results of this have been: 1. A greater interest in the food consumed. 2. A better nutritional state of the individual patient. 3. A total absence of nutritional and vitamin diseases in the hospital. The patients needing special diets naturally receive them.

In addition to this preparation of food, the aesthetics of the problem have been handled by the creation of clean, wholesome, and exceedingly attractive kitchens and dining rooms. These, likewise, stimulate the interest of the patient in the food he consumes and make it infinitely more pleasant for him. The kitchen where all food is prepared is spotless and is maintained thusly at all times. The dining rooms of the patients and employees are likewise kept spotless and always have the appearance of having been freshly painted. The tables upon which the patients eat are never permitted to become marred or scratched. The windows are draped in colorful curtains, and the cafeterias are kept interestingly decorated with paintings, flowers, plants, and aquaria. Patients are trained to serve food carefully and attractively in the patients' cafeteria, and derive much therapeutic value in so doing.

On the infirmary service, those patients, who are able to, are served in a small dining room, while those who are unable to leave their beds are fed food from containers kept constantly hot in electrically heated food conveyors.

*Clothing and Bedding:* In the course of this year more progress has been made in the utilization of clothing for patients, which is identical with what they would use if they were individuals living outside of the hospital. They are at all times properly clothed, due respect being constantly paid to the condition of the weather.

Each bed in the institution is at all times kept supplied with clean linen and mattresses.

In order to supply these articles, W.P.A. Projects have been utilized, and in conjunction with the Sewing Room, these projects have produced the following articles, besides many miscellaneous items: Bedgowns, 993; slacks, 764; shirts, 454; shorts, 1,960; dresses, 3,006; sheets, 4,481; pillow cases, 3,274.

In December, 1938, asphalt tile, which has been found to be far superior for our purposes than linoleum, was laid on the first floors of the N and P Buildings.

The East Employees' Cafeteria was completed, and the new Gatehouse completed.

The vegetable preparation room was established in the East Group for the preparation of vegetables for the entire institution.

In January, 1939, asphalt tile was laid in the J and M Buildings and the W.P.A. Cleaning Project started its work.

In February, 1939, the dark trim in the M and N Buildings was repainted a gray, making the external appearance of these buildings more attractive.

At this time 50 National Youth Administration workers reported for duty for work on the wards.

In March, 1939, the benches and settees were repainted.

In April, 1939, colorful electric table lamps were placed on the wards.

The G Building was converted into a unit for convalescent young patients.

The stenographic offices were centralized in the Reception Building.

Dr. Francis H. Sleeper, Director, State Hospital Inspection, Department of Mental Health, spent several weeks inspecting the hospital.

In June, 1939, the outdoor toilet for the patients was constructed on the West Recreation Field.

Centralized bathing units were established in the B, J, and O Buildings.

In July, 1939, 17,000 pine and Colorado spruce trees were planted.

The cafeteria in the Employees Club was discontinued.

Central clothing rooms were established for patients' property.

Colorful umbrellas and garden chairs were purchased and placed on the grounds.

Venetian blinds were placed in the Employees' Dining Room and on the windows of the Patients' Cafeterias, both East and West.

The auditors examined the hospital books.

On July 26, 1939, Mr. Paul C. Cabot and Mr. Charles W. Greenough visited the institution.

In August, 1939, twenty-nine women were transferred to this institution from the Foxborough State Hospital.

The first floor of the T Building was converted into a male parole patients' unit and 78 patients were moved into it.

The East Kitchen was closed.

On August 9, 1939, Dr. Clifton T. Perkins, Commissioner, Department of Mental Health, visited the institution.

On August 21, 1939, Hon. Maurice J. Tobin, Mayor of Boston, visited the institution.

On September 11, 1939, Fire Commissioner William Arthur Reilly visited the institution.

In October, 1939, the two porches on the H Building were enlarged.

The cafeteria in the A Building was started.

The Chapel was being renovated with French windows and the floor was stripped.

#### RECREATIONAL THERAPY

It has been demonstrated many times that mental rehabilitation of a normal person who has been under great strain and nervous tension, or who has had to work hard at his occupation, or who has undergone a marked emotional reaction, is the participation in some sort of play activity. This play may be in the form of any type of physical or mental activity, as long as it is foreign to the original occupation and results in the precipitation of a certain amount of involuntary pleasure. In the treatment of the mentally ill person these principles hold good even more strongly than for the normal person. In order to accentuate their recovery, it is important that there be made available to them a recreational program so designed as to stimulate their interest and involve their emotions and thinking along lines which hereto had been poorly utilized, or not utilized at all.

During the fiscal year such a recreational therapy program has been developed at this hospital, and it is my firm belief that it has materially assisted in many of the remissions and recoveries which have occurred in patients housed herein. The following is an analysis of this program:

*Auxiliaries*:—(1) The American Legion: 52 Visits—Distribution of delicacies and smokes. 12 dancing parties, refreshments, entertainment. 52 luncheons.—Mrs. Mary McLaughlin, Chairman.

(2) Veterans of Foreign Wars: 52 Visits—Herbert J. Wolfe Post: Distribution of "Goodies" and smokes. Louis D. Brandeis Post: 12 dancing parties, refreshments, entertainment. Lotta Crabtree Post: Passover celebration.

*Bands and Orchestras*:—The American Legion: 10 Concerts—Courtesy of Commanders and Directors. Catholic Youth Organization: 15 Concerts—Courtesy of Commanders and Directors. Firemen's: 12 Concerts—Courtesy of Commander Wm. Arthur Reilly. Policemen's: 12 Concerts—Courtesy of Commander Joseph F. Timilty. Salvation Army: 10 Concerts—Courtesy of Major Chester A. Brown.

*Baseball Games*:—"Bees": 4 Games—Courtesy of J. Robert Quinn, President. "Red Sox": 4 Games—Courtesy of Thomas A. Yawkey, President.

*Christmas Carolers*: St. John's and St. Hugh's, Roxbury; St. Leo's, Dorchester; Parkway Churches, Milton—Courtesy of Rectors of Churches.

*Christmas*:—Concert—Dorothy Clarke, Director. Dancers—Gertrude Dolan Studios, Courtesy of Gertrude Dolan. Play—Colored Centre of Boston—Courtesy of Mother Mary of Grace.

*Choral Singing*:—Daily Singing—365 days, daily, singing by patients.

*Field Days*:—Recreational Grounds: Memorial Day, Bunker Hill Day, Independence Day, Labor Day, Columbus Day.

*Federal Theatre Project*:—Plays and entertainment—25 Appearances—Courtesy of Supervisor, W.P.A. Theatre Project.

*Games*:—Beano, bridge, Chinese checkers, cribbage, dominoes, parchesi, whist—700 games.

*Glee Clubs*:—The American Legion (2 performances)—J. J. Madden, Director. Suffolk County Auxiliary, all women.

*Hikes* (each 10 trips):—Arnold Arboretum, Franklin Field, Bowling-on-Green, Tennis tournaments, Franklin Park Zoo. Courtesy of William P. Long, Chairman, Park Commission.

*Holidays* (dancing parties):—Orchestra and Entertainment—New Year's, Lincoln's Birthday (dancing), St. Valentine's, Washington's Birthday (favors), St. Patrick's Day, Patriot's Day (refreshments), Memorial Day, Bunker Hill Day, Independence Day, Labor Day, Columbus Day, Hallowe'en, Armistice Day, Thanksgiving Day, Christmas Day.

*Hockey*:—Hockey games—Boston Gardens (3 trips).—Courtesy of Weston W. Adams, President.

*Movies*:—Best motion pictures of the year. 110 showings.

*Picnics and Bus Rides*:—Picnic suppers and bus rides (at the Blue Hills Boy Scout Encampment), 16 trips.

*Quartettes*:—The American Legion, J. J. Madden, Director. Immaculate Conception Church, Boston, Dorothy Clarke, Director. Salvation Army, Major LeRoy Stockman, Director.

*Radio*:—All Wards, Cafeterias, and Hydrotherapy Suites. Hourly, Daily News Casts. Daily Weather Reports. Daily Concerts (9.00 a.m. and 9.00 p.m.). Wurlitzer Recordings—"Music They Want."

*Recitals*:—Organ, 50 recitals.

*Sports*:—Seasonal and daily. Recreational Grounds (East and West). Hop-scotch, hoop rolling, kite flying, marbles, quoits, rope jumping, sliding, skating (ice and roller).

*Shore "Bus Trips"*:—To Nantasket, Paragon Park, Pemberton, Hull. Mrs. Herbert Channing Huntress, Chairman. American Red Cross, Grey Ladies, Hostess.

#### RESEARCH LABORATORY

During the past year the Research Division of the hospital carried out researches which are classified as follows:

- I. Human autonomic pharmacology and allied subjects.
- II. Biochemistry of alcohol.
- III. Neuropathological studies.
- IV. Vitamin deficiencies: their effects on the nervous system and the blood.
- V. Sex hormone studies.
- VI. Heredity studies.
- VII. The "total push" method in chronic schizophrenia.
- VIII. Organization activities.

#### I. Human autonomic pharmacology and allied subjects:

The main efforts of the laboratory in this field have been directed to the study and development of new drugs.

1. An interesting new chemical, furfuryl trimethyl ammonium iodide, shows the following general characteristics. It acts on the eye as a parasympathetic drug and thus narrows the palebral fissure, constricts the pupil, lowers the intra-ocular tension, and probably increases the power of accommodation. It has a marked effect upon sweating, and thus reduces the temperature of the body very effectively. It increases salivation, lacrimation, and rhinorrhea. It has little effect on blood pressure, thus differing from the true parasympathetic drugs, such as mecholyl (acetyl-beta-methylcholine chloride). It has only a moderate effect upon heart muscle. It increases gastrointestinal peristalsis and genitourinary smooth muscle activity. It probably has a clinical field of usefulness inasmuch as it can be taken by mouth. We have not as yet entered into this phase of work. A paper on this drug, which will be the first publication to concern its human pharmacology, is already prepared for publication.

2. Extensive clinical work is now going on in regard to the relationship between benzedrine (amphetamine) sulfate and the barbiturates. Present clinical studies show that the two drugs act well in correcting the excess reactions to the other drug, and furthermore produce a total effect which is of value in the neuroses and in manic-depressive psychosis.

3. One of the important pharmaceutical houses is collaborating with the director in an effort to develop new and better anti-epileptic drugs, and also to develop the interesting mood effects of benzedrine (amphetamine) sulfate by linking up its molecule with

that of other drugs having an effect on the mood. This work will probably be an important phase of the next year's activity.

#### 4. Brain metabolism—

(a) An important research which has been conclusively and satisfactorily carried out has been on the question of the metabolism of sugar by the brain. This study involved the use of the jugular puncture method and is the first study of its kind. In its results it completely contraverts certain assumptions that have been made. It shows conclusively that after insulin the brain loses the power to use sugar and oxygen for a much longer period of time than the muscles of the body do, thus contradicting the statement that following insulin the therapeutic results observed are due to the greater use of oxygen and sugar by the brain. As a matter of actual fact, the brain has a reduced power to use oxygen and sugar for a considerable period of time. This research bears quite heavily on certain phases of narcosis and stupor. This study was carried out by Dr. Julius Loman.

(b) Certain experimental studies on metrazol were also carried out in this laboratory. It was shown that during and following the period of stupor the brain sugar was not diminished, thus distinguishing this type of reaction from that found in insulin shock. Certain other important metabolic results were observed which are incorporated in a paper soon to be published.

#### II. *Biochemistry of alcohol:*

Under the leadership of Dr. Max Rinkel a long series of experiments were carried out to study the quantitative relationship of alcohol in the brain, arterial and basilar bloods. These studies are still in progress. They give some measure of the activity of the brain under alcohol and will be published in extense later on.

#### III. *Neuropathological studies:*

Studies in neuropathology have taken interesting and important directions during the past year. These have been largely carried out by Dr. Leo Alexander in association with the director.

1. An investigation of cell minerals in various types of idiocy was carried out. This study disclosed facts of great theoretic interest and also of diagnostic importance. It showed that the ganglion cell disease of amaurotic family idiocy was characterized by demineralization of an extreme degree, whereas the cells in tuberous sclerosis showed marked hypermineralization of the cytoplasm. Consequently, amaurotic family idiocy, in respect to its ganglion cells, aligns itself with other degenerative conditions, and tuberous sclerosis with diseases of a neoplastic nature.

2. Clinical and experimental investigations of brain damage due to alcoholism and vitamin deficiency constituted an important part of the laboratory work during the past year. The major result of these studies was the experimental reproduction of Wernicke's disease (hemorrhagic polio-encephalitis) in pigeons, thus lining up vitamin deficiency with the condition found in chronic alcoholism and the associated vitamin deficiencies in man. The vitamin deficiency or imbalance was a diet rich in Vitamins A, C, D, and B<sub>2</sub>, but lacking completely in Vitamin B<sub>1</sub>.

3. Many other studies were carried out in collaboration with other groups, but since they did not constitute a primary part of the activities of this laboratory, they are only mentioned here. Thus, studies of the vascular system, the role of the cerebral vessels in disseminated encephalomyelitis, certain of the results and pathogenesis of electrical injury to the brain, the experimental reproduction of brain tumors, a study of the histologic changes in senile dementia and related conditions were carried out by Dr. Alexander as part of his activities as a member of other organizations.

4. The laboratory has made an interesting connection with E. I. du Pont de Nemours and Company, Inc., who most cordially sent us samples of their newest dyes which, it is anticipated, will give us new methods of staining the nervous and other tissues of the body.

#### IV. *Vitamin deficiencies: their effects on the nervous system and the blood:*

A Vitamin B<sub>2</sub> deficiency state was produced in pigeons by putting them on a diet of polished rice, at the same time giving them injections of Vitamin B<sub>1</sub>. A characteristic deficiency state ensued, easily identified, and associated with a moderate to marked anemia and hyperplastic changes in the bone marrow. Therapies with riboflavin, nicotinic acid, and Vitamin B<sub>6</sub> were without effect. There was a striking effect on both the clinical and hematological aspects of the deficiency by the administration of yeast, concentrated tablets, or dilute liver extract injections. Concentrated liver extract injec-

tions had a less marked effect than the dilute form. Suggestive results were obtained with Elvehjem's anti-chick dermatitis factor. These researches were carried out by Dr. William Dameshek and Dr. Paul G. Myerson.

#### V. *Sex hormone studies:*

One of the most interesting activities of the laboratory has been the study of the sex hormones in the urine of patients of diverse types and under experimental conditions. The results of these investigations, carried out under the leadership of Dr. Rudolf Neustadt, may be summarized as follows, although only a hint, rather than a complete account, can be given in an abstract of this kind.

1. It has been shown that ultraviolet irradiation of the body and especially of the genitalia immediately and markedly increases the output of sex hormone, male and female, in the urine.

2. Studies carried out on thyroid gland conditions show that both hyperthyroidism and hypothyroid conditions are very definitely associated with a deficient manufacture or secretion of sexual hormones.

3. We believe we are developing a system of identification of the sexual constitution of the individual by the study of the urinary hormones. This is by far the most important part of our work and suggests leads of enormous importance for future work. We believe at the present time that we can identify the true homosexual individual by the relative amounts of male and female hormones in his urine, and that we can also identify the individual of deficient sexual drive by his hormonal content. We are receiving the collaboration of the state hospitals of Massachusetts in doing this work and within a few months will have material for a conclusive publication.

4. Studies are being carried out in this laboratory in respect to the relationship of iodine, cholesterol and the sexual hormones in the urine. This work is in a preliminary stage.

#### VI. *Heredity Studies:*

1. At the McLean Hospital in Waverley we have been carrying out a series of researches on the mental diseases of distinguished families. We have selected very important American families, some of whose members have been patients at the McLean Hospital, and we have attempted to build up a family tree which will indicate the amount of mental disease in these families. The point of the research is fundamentally this: The liabilities of mental disease have been sufficiently pointed out but only very sporadic attempts have been made to show that there may be some degree of asset value present. In other words, a certain amount of or certain types of mental disease may occur in gifted individuals in disproportionate amount. This has been pointed out in connection with manic-depressive psychosis by several workers. Our researches indicate the following: That if the present sterilization laws of Germany and of certain states of the United States, notably California, had been carried out in the early part of the nineteenth century, the most distinguished philosopher and the most distinguished psychologist of America would not have been born. However, very important individuals who have played a great role in the development of New England had enough mental disease in their immediate ancestors and in their collaterals to brand them, under the laws of some states and countries, as inferior individuals who should have been sterilized. In other words, the question is raised, whether or not in bringing up the matter of sterilization and mental disease, the nature of the particular and individual family group should not be taken into account, since mental disease, especially manic-depressive psychosis, may be episodic in the history of a life which, on the whole, is highly meritorious and socially valuable.

2. A research is also being carried out on a statistical basis to see whether or not the families of dementia praecox patients have a low marriage and birth rate. It has been shown quite conclusively that dementia praecox acts as a barrier to marriage. The question which we raise is whether or not the collaterals and siblings of such individuals also have a low marriage and birth rate, since it is from them that the constitutionally disabled stock comes.

This work has been carried out under the auspices of the American Neurological Association by a grant from the Carnegie Corporation. Miss Rosalie Boyle has acted as field worker, Miss Mollie S. Levin as secretary, and Drs. Tillotson and Chittick have generously collaborated.

### VII. *The "total push" method in the treatment of chronic schizophrenia:*

As Chairman of the Committee on Research for the Commonwealth of Massachusetts, the director has carried out in collaboration with various other hospitals of the state and especially the McLean Hospital researches on the treatment of schizophrenia by the total push method. This was described in last year's report and needs no amplification or description here.

It has been definitely shown that even the deteriorated and chronic schizophrenics may be greatly improved in conduct, working ability, and general social contact by the total push method, which perhaps had better be described as an "increased activation method," since the technique is not that of "push" necessarily, nor is it by any stretch of the imagination "total." The results at the McLean Hospital have been very satisfactory. Patients who have been out of activity and exceedingly difficult to manage for twenty years have improved greatly in conduct, work ability, and social contact. Patients of lesser periods of disease have also done well, although no patient has been cured by the method. Utilization of the method at the McLean Hospital on acute cases has given very promising results, especially in the type of case which shows merely a passive retreat rather than a very active, hostile social attitude.

At the state hospitals where there are lesser facilities, the results have been more difficult to obtain, yet in several institutions marked improvement in the condition of the patients has been noted.

The projected program is to carry on this research for a year, during which time enough facts will have been gathered to lead to a further orientation of the problem and a more developed approach.

### VIII. *Organization activities:*

1. By virtue of the fact that the director is chairman of the State Research Committee, a lineup with other hospitals has taken place in research activity. Thus, a very interesting research on the treatment of epilepsy has been carried out for three years at the Grafton State Hospital, the active worker in this institution being Dr. Benjamin Cohen. Certain drugs have been selected for experimental use and we have shown the following: (a) Large doses of phenobarbital effectively reduce the incidence of major epileptic attacks. When toxic symptoms occur, they can be corrected by the judicious use of benzedrine (amphetamine) sulfate. (b) The combination of phenobarbital and dilantin greatly enhances the value of either drug in the treatment of severe epilepsy. The attacks have been reduced 80 and more per cent, and in many instances the patients have been free of attacks indefinitely. (c) Mebaral is a very useful non-toxic drug in the treatment of major and minor epileptic attacks. So far as our researches go, it is equal to either dilantin or phenobarbital.

2. The director is a member of the Research Council for the Study of Alcoholism for the American Association for the Advancement of Science and as such is collaborating on the study of alcoholism throughout the United States.

3. The director has just been appointed consultant in research on drug addiction to the government hospital in Louisville, Kentucky.

\* \* \* \*

Acknowledgments are made to the Commonwealth of Massachusetts, the Rockefeller Foundation, the Child Neurology Research (Friedman Foundation), the Charlton Fund (Tufts College Medical School), the Carnegie Corporation of New York, the Emergency Committee for the Displacement of Foreign Medical Scientists, the Works Progress Administration Project No. 18088, and to the following pharmaceutical houses: Smith, Kline and French Laboratories; Winthrop Chemical Co.; Sharp and Dohme; Merck and Co.; and Hoffman-La Roche.

### PAPERS PUBLISHED

1. Summary of the report of the American Neurological Association Committee for the investigation of Sterilization. *Am. J. Medical Jurisprudence* 1:253-257 (Dec.) 1938. (A. Myerson.)

2. Beri-beri and scurvy. An experimental study. *Trans. Am. Neurol. Assoc.*, The William Byrd Press, Richmond, Va. 64:135-139, 1938. (L. Alexander, A. Myerson, M. Pijoan.)

3. Photo-colorimetric method for the determination of androsterones in urine. *Endocrinology* 29:711-717 (Dec.) 1938. (R. Neustadt.)

4. Human Autonomic Pharmacology. XVII. The effect of acetyl-beta-methylcholine chloride on the gall bladder. *Am. J. Digest, Dis.* 5:687-690 (Dec.) 1938. (P. G. Schube, A. Myerson, R. Lambert.)
5. The relation of the autonomic nervous system to pharmacology. *J. Conn. State Med. Society* 8:19-21 (Jan.) 1939. (A. Myerson.)
6. The effect of benzedrine, benzedrine and atropine, and atropine on the gall bladder. *Am. J. Med. Sci.* 197:57-61. (Jan.) 1939. (P. G. Schube, A. Myerson, R. Lambert.)
7. Human Autonomic Pharmacology. XV. The effect of acetyl-beta-methylcholine chloride (mecholy) by iontophoresis on arterial hypertension. *Annals Int. Med.* 12:1213-1222 (Feb.) 1939. (J. Loman, M. F. Lesses, A. Myerson.)
8. Comparative effects of amphetamine sulfate (benzedrine sulfate), paredrine and propadrine on the blood pressure. *Am. Heart J.* 18:89-93 (July) 1939. (J. Loman, M. Rinkel, A. Myerson.)
9. The reciprocal pharmacologic effects of amphetamine (benzedrine) sulfate and the barbiturates. *New England J. Med.* 221:561-563 (Oct. 12) 1939. (A. Myerson.)
10. Benzedrine sulphate—an antidote for the untoward hypnotic and ataxic effects of phenobarbital in the treatment of epilepsy. In "Symposium on Therapy"; *Bull. Mass. Dept. of Mental Health*, Sept. 1939. (B. Cohen, A. Myerson.)
11. Theory and principles of the "total push" method in the treatment of chronic schizophrenia. *Am. J. Psychiat.* 95:1197-1204 (March) 1939. (A. Myerson.)
12. Influence of ultraviolet irradiation upon excretion of sex hormones in the male. *Endocrinology* 25:7-12 (July) 1939. (A. Myerson, R. Neustadt.)
13. The reaction of the cerebral vessels to intracarotid injection of horse serum in sensitized and non-sensitized guinea pigs. *Confinia Neurologica* 2:215-219, 1939. (A. Buermann, L. Alexander.)
14. Cell minerals in amaurotic idiocy, tuberous sclerosis and related conditions, studied by microincineration and spectroscopy. Examples of degenerative and of neoplastic cell disease. *Am. J. Psychiat.* 96:77-85 (July) 1939. (L. Alexander, A. Myerson.)
15. The relationship of hereditary factors to mental processes. *Research Pub. Assoc. Res. in Nerv. & Ment. Dis.* 19:16-49 (Sept.) 1939. (A. Myerson.)
16. Sources of mental disease; their amelioration and prevention. Summary and critique. *Pub. No. 9*, p. 120-136 of American Association for the Advancement of Science, 1939. (A. Myerson.)
17. Alcoholism and mental disease. *Pub. No. 9*, p. 83-90, American Association for the Advancement of Science, 1939. (L. Alexander.)

#### PAPERS IN PRESS

1. Topographic and histologic identity of the experimental (avitaminotic) Wernicke lesions with those occurring in hemorrhagic polioencephalitis in chronic alcoholism in man. (L. Alexander.) *Am. J. Pathol.*
2. The rationale of amphetamine (benzedrine) sulfate therapy. (A. Myerson.) *Am. J. Med. Sci.*
3. The effect of amphetamine sulfate (benzedrine sulfate) and paredrine hydrobromide upon sodium amylal narcosis. (A. Myerson, J. Loman, M. Rinkel, M. F. Lesses.) *New England J. Med.*
4. The synergism of phenobarbital, dilantin, and other drugs in the treatment of institutional epilepsy. (B. Cohen, N. Showstack, A. Myerson.) *J. A. M. A.*
5. Changes in oxygen, carbon dioxide and sugar content in the arterial and internal jugular blood during metrazol convulsions. (J. Loman, M. Rinkel, A. Myerson.) *Arch. Neurol. & Psychiat.*
6. The attitudes of neurologists, psychiatrists, and psychologists towards psychoanalysis. (A. Myerson.) *Am. J. Psychiat.*
7. Total Push Method. III. Schema for the recording of certain important attitudes in chronic schizophrenia. (A. Myerson.) *Am. J. Psychiat.*
8. The social psychology of alcoholism. (A. Myerson.) *Diseases of the Nervous System.*
9. A distinctive vitamin B deficiency state in pigeons. (W. Dameshek, P. G. Myerson.) *Am. J. Med. Sci.*
10. Errors and problems in psychiatry. (A. Myerson.) *Mental Hygiene.*



## PAPERS READ

1. A group of neurological conditions of interest to the general practitioner: electrical injuries, eastern equine encephalitis, brain diseases due to chronic alcoholism. (Read by L. Alexander before the North Shore Medical Society, Dec. 8, 1938.)
2. Human Autonomic Pharmacology. (Read by A. Myerson before the St. Luke's Guild at Boston State Hospital, Dec. 14, 1938.)
3. The total push method in the treatment of schizophrenia. (Read by A. Myerson before the Boston Society of Psychiatry and Neurology, Dec. 15, 1938.)
4. Problems of vitamin deficiency and the nervous system. (Read by A. Myerson before the Hartford City Medical Society, Dec. 19, 1938.)
5. Electrical injuries. (Read by L. Alexander before the Utilities Accident Prevention Committee of New England, Dec. 20, 1938.)
6. Sources of mental disease: their amelioration and prevention. (Read by A. Myerson before the American Association for the Advancement of Science, Richmond, Va., Dec. 28, 1938.)
7. The relationship of hereditary factors to mental processes. (Read by A. Myerson before the Association for Research in Nervous and Mental Disease, New York City, Dec. 27, 1938.)
8. The neuropathology of alcoholism. (Read by L. Alexander before the Boston Society of Psychiatry and Neurology, Jan. 19, 1939.)
9. Brain waves. (Read by J. Loman before the Phi Lambda Kappa Medical Fraternity, Jan. 20, 1939.)
10. Theory and practice of the "total push" method in the treatment of chronic schizophrenia. (Read by A. Myerson and K. Tillotson before the Massachusetts Psychiatric Society, Jan. 27, 1939.)
11. Clinical syndromes in neurology. (Read by J. Loman before the Attleboro Medical Society, Feb. 3, 1939.)
12. Physiotherapeutics and motivation in the treatment of chronic schizophrenia. (Read by A. Myerson before the New England Society of Physical Medicine, March 15, 1939.)
13. Human autonomic pharmacology. (Read by J. Loman before the Sir William Osler Honor Society of the Middlesex University School of Medicine, April 26, 1939.)
14. The total push method of treatment of chronic schizophrenia. (Read by A. Myerson and K. J. Tillotson before the American Psychiatric Association, Chicago, Ill., May 12, 1939.)
15. The neuroses. (Read by A. Myerson before the Central Association of Public Health Nurses, Grafton State Hospital, May 26, 1939.)
16. The total push method in the treatment of chronic schizophrenia (with demonstrations). (Read by A. Myerson before staff members of the various state hospitals of Massachusetts at the McLean Hospital, May 26, 1939.)
17. Cell minerals in amaurotic idiocy, tuberous sclerosis and related conditions, studied by microincineration and spectroscopy. (Read by L. Alexander and A. Myerson before the American Association on Mental Deficiency, Chicago, Ill., May 3, 1939.)
18. Exhibit: Mineral studies of the brain by means of microincineration and spectroscopy: Exhibit of apparatus used; photomicrographs of normal and pathologic brain tissue; reproductions of spectroscopic graphs. (By L. Alexander and A. Myerson at the American Medical Association, St. Louis, Mo., May 15-19, 1939.)
19. The social psychology of alcoholism. (Read by A. Myerson before the American Psychopathological Association, Atlantic City, N. J., June 5, 1939.)
20. The synergism of phenobarbital, dilantin and other drugs in the treatment of institutional epilepsy. (Read by B. Cohen, N. Showstack, and A. Myerson before the American Psychopathological Association, Atlantic City, N. J., June 5, 1939.)
21. Neuropathological aspects of alcoholism. (Read by L. Alexander before the American Psychopathological Association, Atlantic City, N. J., June 5, 1939.)
22. Topographic and histologic identity of the experimental (avitaminotic) Wernicke lesions with those occurring in hemorrhagic polioencephalitis in chronic alcoholism in man. (Read by L. Alexander before the American Association of Neuropathologists, Atlantic City, N. J., June 5, 1939.)
23. Intracranial dynamics. (Read by J. Loman before the American Psychopathological Association, Atlantic City, N. J., June 5, 1939.)

24. The legal side of medicine, or the doctor in court. (Read by A. Myerson before the Boston City Hospital House Officers' Association, June 28, 1939.)

25. Human autonomic pharmacology (with exhibit). (Read by A. Myerson before the Third International Neurological Congress, Copenhagen, Denmark, August 21-25, 1939.)

26. Beri-beri and Wernick's hemorrhagic polioencephalitis. An experimental study. (Read by L. Alexander before the Third International Neurological Congress, Copenhagen, Denmark, August 25, 1939.)

27. Heredity and environment in relationship to intelligence, personality and mental disease. (Read by A. Myerson before the Boston Dispensary Staff, October 20, 1939.)

28. Clinical review of the disorders of motion. (Read by A. Myerson before the Jewish Memorial Hospital, October 31, 1939.)

29. The theories and facts of the inheritance of mental disease, and the value of sterilization. (Read by A. Myerson before the New York Academy of Medicine, New York City, November 30, 1939.)

#### FINANCIAL STATEMENT

The appropriation for maintenance for the past year was \$1,137,215.66, plus an amount of \$174.27 brought forward from 1938, making a total appropriation of \$1,137,389.93. The expenditures amounted to \$1,118,667.28, giving a weekly cost for patient of \$9.312. This was for an average of 2,310.1991 patients.

The estimate for maintenance for the coming year, based on a patient population of 2,460 is as follows:

Personal services . . . . .	\$670,000.00
Travel, transportation and office expenses . . . . .	9,600.00
Food . . . . .	247,000.00
Clothing and materials . . . . .	34,100.00
Religious instruction . . . . .	2,080.00
Furnishings and household supplies . . . . .	36,200.00
Medical and general care . . . . .	26,000.00
Heat and other plant operations . . . . .	97,525.00
Farm . . . . .	—
Garage and grounds . . . . .	9,250.00
Repairs ordinary . . . . .	16,225.00
Repairs and renewals . . . . .	16,000.00

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\$1,163,980.00

#### RECOMMENDATIONS

In order that this institution can be increased in its efficient functioning and at the same time provide adequate care, treatment, and security for the mentally ill patients, some improvements need to be made.

One of the most serious menaces to the health and to the safety of the patients is an open stream which passes through our property. This stream drains unclean areas in addition to the cemetery, and from this point of view is dangerous to the health of our patients. In addition to this, the water is deep enough to drown in, and there is always the possibility that one of our patients, sooner or later, will drown in this stream. It is my feeling that this waterway should be completely covered over on the hospital property. The cost to do this will be approximately \$100,000.

There are five stucco buildings on the hospital grounds, all designed to house patients. Three of them are housing patients at the present time. Although these buildings all have adequate fire escapes, and are protected with a water sprinkling system in case of fire, the most dangerous of all hazards in the production of fire still remains and is forced to function in these buildings, *i.e.*, old electrical wiring which cannot be repaired because any attempt to repair only results in further damage to it. All of this wiring should be removed from these buildings and new wiring installed. The cost of this will be approximately \$50,000.

The entire electrical system of this hospital is fed by one power plant. The interruption of the flow of electricity from the power plant shuts down all electrical lightings machinery, and appliances. During the day this is not too serious, but when it happens, during the night, the entire hospital is thrown into total darkness. In order to prevent

the interruption of this electricity to the lighting system of the hospital, I feel that the most vulnerable part of this system should be protected, *i.e.*, the power lines from the power plant should be placed underground. They are now strung overhead on poles and several times storms have torn them down. The cost of placing these lines underground would be approximately \$40,000.

This hospital, which houses 2,322 patients, is spread over 224.66 acres of ground and in the heart of Boston. Its property is divided by an arterial highway which acts as a transportation trunk line between Boston and the Cape. This highway, because of the high speed which is developed upon it, creates a serious hazard relative to the movement of patient population across it. This movement of the population across this highway is necessary because of the eccentric location of our industries, the presence of an antiquated auditorium on one side of the street, and the recreation field upon the other. Each patient walking across that street, regardless of the supervision, is in danger of his or her life from autoists. In order to eliminate this hazard, I feel that a tunnel should be bored under Morton Street and a passageway made thereunder to handle the hospital traffic. The cost of this would be approximately \$60,000.

Except for a few buildings in the East Group, one of the buildings in this entire institution, are connected with each other or with the patients' dining rooms. Inasmuch as practically all of the patients are fed in three cafeterias, this means that in order to feed the patients, they must go out of doors to their meals, regardless of the weather. It might be argued that they should be fed in their respective buildings but such decentralization is impractical and perpetually costly. This movement of patients out of doors, holds equally true of the transfer of patients from building to building. This movement is imperative and can be properly handled in only one manner, *i.e.*, by the erection of tunnels interconnecting buildings and connecting buildings with the dining rooms. To do this work will cost approximately \$85,000.

One of the most massive parts of this hospital is the entertainment program. A large portion of this entertainment is carried out indoors and at night in the auditorium. This auditorium is located in the East Group, where there are housed 686 patients, only a small number of whom go to these entertainments at night. These entertainments are attended primarily by patients from the West Group, where there are 1,636 patients housed. Because of the long walk necessitated, it is necessary for patients going from the West Group to the East Group to attend the entertainments, not only to walk a long distance, but to cross the dangerous intersection at Morton and Harvard Streets. A large auditorium should be erected in the West Group. This building would cost approximately \$192,000.

#### CONCLUSION

I wish to extend my thanks to the members of the Board of Trustees for their co-operation and helpfulness at all times during the past year and to assure them that it has been appreciated by me.

The death of Dr. Thomas J. Scanlan, Chairman of the Board of Trustees, on October 18, 1939, after more than twenty-five years of service as a Trustee of State Hospitals, was a great loss.

I wish also to thank the medical staff, the various department heads, and all of the employees for all they have contributed to the health and happiness of our patients during the past year.

Respectfully submitted,

HAROLD F. NORTON,  
*Superintendent.*

#### VALUATION November 30, 1939 REAL ESTATE

Land, 224.66 acres . . . . .		\$974,100.00
Buildings and Betterments . . . . .		3,814,468.36
		<hr/>
		\$4,788,568.36

## FINANCIAL REPORT

To the Department of Mental Health:

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1939.

STATEMENT OF EARNINGS			
Board of Patients			\$82,260.08
Personal Services			336.57
Sales:			
Food		\$726.24	
Furnishings and household supplies		21.50	
Medical and general care		3.00	
Repairs ordinary		124.50	
Miscellaneous		79.92	
Farm: 1 Boar		5.00	
Total Sales			960.16
Miscellaneous			70.32
Total earnings for the year			\$83,627.13
Total cash receipts reverting and transferred to the State Treasurer			83,620.13
Accounts receivable outstanding Nov. 30, 1939		\$7.00	
Accounts receivable increased			7.00
MAINTENANCE APPROPRIATION			
Balance from previous year, brought forward			\$174.27
Appropriation, current year			1,137,215.68
Total			\$1,137,389.95
Expenditures as follows:			
Personal services		\$638,069.82	
Food		241,540.69	
Medical and general care		20,831.50	
Religious instruction		2,081.65	
Farm		—	
Heat and other plant operation		96,893.90	
Travel, transportation and office expenses		9,365.90	
Garage, \$8,137.10; grounds, \$1,115.37		9,252.47	
Clothing and materials		33,863.10	
Furnishings and household supplies		33,019.58	
Repairs ordinary		14,720.16	
Repairs and renewals		19,028.51	
Total maintenance expenditures			\$1,118,667.28
Balance of maintenance appropriation, Nov. 30, 1939			18,722.67
SPECIAL APPROPRIATIONS			
Balance December 1, 1938, brought forward			\$52,944.93
Appropriations for current year			67,500.00
Total			\$120,444.93
Expended during the year		\$38,863.14	
Reverting to Treasury of Commonwealth		16.93	38,880.07
Balance November 30, 1939; carried to next year			\$81,564.86

APPROPRIATION	Act or Resolve	Total Amount Appropriated	Expended during fiscal year	Total Expended to date	Balance at end of year
Iron fence	Yr. Ch.				
W.P.A. materials	1937-434	\$13,000.00	\$749.50	\$12,792.22	\$207.78
Hurricane and flood damages	1938-497	15,000.00	4,123.29	4,123.29	10,876.71
Fire protection	1938-307	14,000.00	12,235.17	12,619.53	1,380.47
Renewing and renovating plumbing	1937-234	62,200.00	21,103.51	60,591.44	1,608.56
Sterilization equipment	1939-309	42,500.00	651.67	35,008.66	7,491.34
Steam lines	1937-234	3,000.00	—	2,983.07	16.93*
	1939-309	60,000.00	—	—	60,000.00
		\$209,700.00	\$38,863.14	\$128,118.21	\$81,581.79

\* As of 3/31/39.

## PER CAPITA

During the year the average number of patients has been, 2,310.1991.  
 Total cost of maintenance, \$1,118,667.28.  
 Equal to a weekly per capita cost of (52 weeks to year), \$9.3121.  
 Total receipts for the year, \$83,627.13.  
 Equal to a weekly per capita of \$.6961.  
 Total net cost of maintenance for year, \$1,035,040.15.  
 Net weekly per capita, \$8.616.

Respectfully submitted,

ROSE J. SICILIANO,  
 Treasurer.

GEORGE E. MURPHY,  
 Comptroller.

Financial Statement Verified.  
 Approved.

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION, PRESCRIBED BY  
THE MASSACHUSETTS DEPARTMENT OF MENTAL HEALTH

TABLE 1. *General Information*

(Data correct at end of institution year November 30, 1939)

Date of opening as a hospital for mental diseases: December 11, 1839.

Type of hospital: State.

Hospital plant:

Value of hospital property:

Real estate, including buildings . . . . . \$4,788,568.36

Total

Total acreage of hospital property owned, 224.66. . . . . \$4,788,568.36

Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	14	1	15	1	—	1
Clinical assistants . . . . .	1	—	1	—	—	—
Total physicians . . . . .	16	1	17	1	—	1
Stewards . . . . .	2	—	2	—	—	—
Resident dentists . . . . .	1	—	1	—	—	—
Pharmacists . . . . .	1	—	1	—	—	—
Graduate nurses . . . . .	—	80	80	—	13	13
Other nurses and attendants . . . . .	133	207	340	3	2	5
Occupational therapists . . . . .	5	12	17	—	—	—
Social workers . . . . .	—	5	5	—	—	—
All other officers and employees . . . . .	142	108	250	3	4	7
Total officers and employees . . . . .	300	413	713	7	19	26

Classification by Diagnosis—September 30, 1939

Census of Patient Population at end of year:

	Actually in Hospital			Absent from Hospital but still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane . . . . .	966	1,265	2,231	147	161	308
Mental defectives . . . . .	—	2	2	—	—	—
Alcoholics . . . . .	1	—	1	—	—	—
All other cases . . . . .	7	10	17	—	3	3
Total . . . . .	974	1,277	2,251	147	164	311
OTHER RACES:						
Insane . . . . .	39	32	71	7	10	17
All other cases . . . . .	—	—	—	—	1	1
Total . . . . .	39	32	71	7	11	18
Grand Total . . . . .	1,013	1,309	2,322	154	175	329

	M.	F.	T.
Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .	1,048	1,164	2,212
Other patients employed in general work of hospital on date of report . . . . .	332	354	686
Average daily number of all patients actually in hospital during year . . . . .	1,016.06	1,301.40	2,317.46
Voluntary patients admitted during year . . . . .	4	7	11
Persons given advice or treatment in out-patient clinics during year . . . . .	61	55	116

TABLE 2. Movement of Patient Population for the Year Ended September 30, 1939

	TOTAL			REGULAR COURT COMMITMENT (INSANE)			OBSERVATION			TEMPORARY CARE			VOLUNTARY		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books at the beginning of the year:															
In hospital	1,045	1,341	2,386	1,037	1,337	2,374									
On visit or otherwise absent	129	138	267	129	138	267									
Total	1,174	1,479	2,653	1,166	1,475	2,641									
Admissions during year:															
First admissions	327	377	704	239	274	513									
Readmissions	164	170	334	117	118	235									
Total admissions	491	547	1,038	356	392	748									
Transfers from other mental hospitals	5	32	37		5	37									
Total received during year	496	579	1,075	361	424	785									
Total on books during year	1,670	2,058	3,728	1,527	1,899	3,426									
Discharged from books during year:															
As recovered	125	111	236	115	100	215									
As improved	117	145	262	98	121	219									
As unimproved	39	88	127	17	22	39									
As without psychosis	80	49	129	3	3	6									
Total discharged to community	361	393	754	233	246	479									
Transferred to other mental hospitals	12	9	21	12	9	21									
Died during year	130	172	302		123	167	290								
Total discharged, transferred and died during year	503	574	1,077	368	422	790									
Patients remaining on books of hospital at end of year:															
In hospital	1,013	1,309	2,322	1,005	1,302	2,307									
On visit or otherwise absent	154	175	329	154	175	329									
Total	1,167	1,484	2,651	1,159	1,477	2,636									

## SUPPLEMENTARY DATA

	Males		Females		Total
Average daily number of patients on books during year					
Actually in institution during year	1,154.95		1,463.66		2,618.61
In family care	1,016.06		1,301.40		2,317.46
On visit	134.48		2.00		2.00
On escape	4.41		158.31		292.79
State			1.95		6.36
Number of patients actually remaining in institution September 30, 1939:					
Reimbursing	941		1,144		2,085
Ex-service patients paid by Federal Government	72		164		236
Number of non-insane patients in hospital at end of institution year:					
Mentally defective			2		2
Others	8		10		18

TABLE 3. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States <sup>1</sup>	191	209	400	96	90	75	89	93	78
Austria	—	—	—	—	—	—	—	1	—
Canada <sup>2</sup>	22	38	60	27	33	20	45	39	33
Central America	1	—	1	—	—	—	—	—	—
China	1	—	1	1	1	1	—	—	—
Czecho-Slovakia	—	—	—	1	—	—	—	—	—
Cuba	—	—	—	1	—	—	—	—	—
England	7	12	19	10	6	4	10	8	5
France	1	1	2	1	2	1	2	1	1
Germany	4	3	7	9	8	8	7	6	5
Greece	—	—	—	1	1	1	3	2	2
Holland	—	1	1	—	—	—	1	1	1
Hungary	—	1	1	—	—	—	1	1	1
Ireland	36	61	97	80	84	73	116	124	110
Italy	22	22	44	32	32	32	30	29	29
Mexico	—	1	1	—	—	—	1	1	1
Norway	2	—	2	2	2	2	—	—	—
Philippine Islands	—	—	—	—	—	—	1	1	1
Poland	3	6	9	6	7	6	8	9	8
Portugal	1	1	2	1	1	1	3	3	3
Russia	13	9	22	17	16	16	11	11	10
Scotland	5	—	5	6	4	3	7	3	2
South America	—	1	1	—	1	—	—	—	—
Sweden	3	1	4	3	4	3	1	3	1
Switzerland	1	1	2	—	—	—	—	—	—
Turkey in Asia	1	—	1	1	1	1	—	—	—
Wales	1	—	1	1	1	1	1	1	—
West Indies <sup>3</sup>	4	1	5	4	4	4	1	1	1
Other Countries	6	6	12	8	8	7	8	7	7
Unknown	2	2	4	19	21	19	31	32	28
Total	327	377	704	327	327	278	377	377	327

<sup>1</sup> Persons born in Hawaii, Porto Rico and the Virgin Islands should be recorded as born in the United States.

<sup>2</sup> Includes Newfoundland.

<sup>3</sup> Except Cuba, Porto Rico and Virgin Islands.

TABLE 4. Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born

AGE AT ADMISSION	Aggregate			NATIVE BORN						FOREIGN BORN										Nativity Unknown													
				Total	PARENTAGE				Total	TIME IN UNITED STATES BEFORE ADMISSION																							
					Foreign	Mixed	Native	Unknown		10-14 years	15 years and over	Unknown																					
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.																		
0-14 years	1	2	3	1	2	3	1	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
15-19 years	12	10	24	14	10	24	7	3	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
20-24 years	14	12	26	11	12	23	3	3	6	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
25-29 years	21	30	51	19	27	46	8	10	18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
30-34 years	13	16	29	11	13	24	5	4	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
35-39 years	26	29	55	15	23	38	4	4	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
40-44 years	24	20	44	14	12	26	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
45-49 years	18	32	50	15	16	31	5	6	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
50-54 years	34	30	64	15	15	30	4	4	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
55-59 years	28	26	54	14	10	24	5	5	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
60-64 years	33	35	68	21	14	35	5	6	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
65-69 years	33	33	66	19	16	35	6	5	11	2	2	3	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
70-74 years	26	43	69	12	17	29	7	10	17	4	4	1	2	2	3	5	1	1	1	1	1	1	1	1	1	1	1						
75-79 years	21	29	50	6	9	15	1	2	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
80-84 years	14	18	32	2	8	10	2	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
85 years and over	9	12	21	2	5	7	2	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
Total	327	377	704	191	209	400	71	90	161	33	24	57	75	78	153	12	17	29	134	166	300	3	5	8	117	135	252	14	26	40	2	2	4



TABLE 5. *Citizenship of First Admissions*

	M.	F.	T.
Citizens by birth . . . . .	191	299	400
Citizens by naturalization . . . . .	59	51	110
Aliens . . . . .	30	40	70
First papers . . . . .	13	5	18
Citizenship unknown . . . . .	34	72	106
Total . . . . .	327	377	704

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	TOTAL			With syphilitic meningo-encephalitis			With other forms of syphilis			With epidemic encephalitis			With other infectious diseases			Alcoholic psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	22	16	38	4	1	5	1	-	1	-	-	-	-	-	-	-	1	1
Armenian . . . . .	2	-	3	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1
Chinese . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English . . . . .	9	15	24	-	-	-	-	-	-	1	1	-	-	-	-	1	1	2
French . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German . . . . .	9	7	16	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2
Greek . . . . .	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew . . . . .	17	17	34	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Irish . . . . .	81	116	197	2	1	3	-	1	1	-	-	-	1	1	-	14	4	18
Italian <sup>1</sup> . . . . .	34	31	65	2	-	2	1	-	1	-	-	-	-	-	-	2	-	2
Lithuanian . . . . .	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Mexican . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese . . . . .	1	3	4	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup> . . . . .	5	1	6	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1
Scotch . . . . .	6	4	10	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Slavonic <sup>3</sup> . . . . .	7	8	15	1	-	1	-	-	-	-	-	-	-	-	-	1	2	3
Syrian . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkish . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Welsh . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	1	1	-	1	-	1
West Indian <sup>4</sup> . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Other specific races . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed . . . . .	118	139	257	4	2	6	-	-	-	-	-	-	-	-	-	13	3	16
Race unknown . . . . .	5	8	13	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Total . . . . .	327	377	704	18	4	22	2	1	3	-	1	1	1	1	2	39	11	50

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Due to drugs, etc.			Traumatic psychoses			With cerebral arteriosclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Senile psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	-	-	-	-	-	-	9	4	13	-	-	-	-	-	-	-	1	1
Armenian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chinese . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English . . . . .	-	-	-	-	-	-	5	9	14	-	-	-	-	-	-	-	-	-
French . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
German . . . . .	-	-	-	1	1	-	5	4	9	-	-	-	-	-	-	-	-	-
Greek . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew . . . . .	-	-	-	-	-	-	6	8	14	-	1	1	-	-	-	-	-	-
Irish . . . . .	-	-	-	-	-	-	31	56	87	1	-	1	-	1	1	1	7	8
Italian <sup>1</sup> . . . . .	-	-	-	-	-	-	5	12	17	-	-	-	-	1	1	-	1	1
Lithuanian . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	1	-	1
Mexican . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup> . . . . .	-	-	-	1	-	1	2	-	2	-	-	-	-	-	-	-	-	-
Scotch . . . . .	-	-	-	-	-	-	5	1	6	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup> . . . . .	-	-	-	-	-	-	1	3	4	-	-	-	-	-	-	-	-	-
Syrian . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkish . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Welsh . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Indian <sup>4</sup> . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other specific races . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed . . . . .	1	1	2	-	-	-	39	51	90	1	-	1	1	4	5	1	4	5
Race unknown . . . . .	-	-	-	-	-	-	4	6	10	-	-	-	-	-	-	-	1	1
Total . . . . .	1	1	2	1	1	2	112	157	269	2	1	3	1	6	7	3	14	17

<sup>1</sup>Includes "North" and South."<sup>2</sup>Norwegians, Danes, and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup>Except Cuba.

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Involuntal psychoses			Due to other metabolic diseases, etc.			Due to new growth			With organic changes of nervous system			Psycho-neuroses			Manic-depressive psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	1	1	—	1	1	—	—	—	—	—	—	—	1	1	—	1	1
Armenian	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	3	3	2	—	2	—	—	—	—	—	—	—	—	—	2	—	2
Irish	3	7	10	3	1	4	—	—	—	4	4	8	1	2	3	2	4	6
Italian <sup>1</sup>	3	2	5	—	1	1	—	—	—	3	—	3	1	1	2	2	3	5
Lithuanian	—	—	—	1	1	2	—	—	—	1	—	1	—	—	—	—	—	—
Mexican	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Slavonic <sup>3</sup>	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Syrian	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Welsh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Indian <sup>4</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	3	11	14	3	3	6	1	—	1	2	—	2	1	3	4	2	14	16
Race unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Total	10	26	36	10	7	17	1	—	1	11	5	16	3	9	12	8	27	35

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Dementia praecox			Paranoia and paranoid conditions			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	3	2	5	1	1	2	—	—	—	—	—	—	—	—	—	4	2	6
Armenian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chinese	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	3	2	5
French	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
Greek	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Hebrew	5	3	8	—	1	1	—	1	1	—	—	—	—	—	—	1	—	1
Irish	6	9	15	—	5	5	—	—	—	—	1	1	1	6	7	12	6	18
Italian <sup>1</sup>	4	6	10	2	—	2	—	1	1	4	—	4	—	1	1	5	2	7
Lithuanian	1	1	2	—	—	—	—	—	—	—	—	—	—	1	1	—	1	1
Mexican	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
Scandinavian <sup>2</sup>	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	1	1	2	—	—	—	—	—	—	—	1	—	1	—	—	1	—	1
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Welsh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Indian <sup>4</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	19	23	42	3	3	6	—	2	2	3	1	4	1	4	5	20	10	30
Race unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	40	48	88	6	11	17	—	4	4	8	3	11	2	14	16	48	25	73

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup>Except Cuba.

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			0-14 years			15-19 years			20-24 years			25-29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	18	4	22	-	-	-	-	-	-	-	-	-	1	-	1
With other forms of syphilis . . . . .	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
With epidemic encephalitis . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses . . . . .	39	11	50	-	-	-	-	-	-	-	-	-	1	-	1
Due to drugs, etc. . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis . . . . .	112	157	269	-	-	-	-	-	-	-	-	-	-	-	-
With other disturbances of circulation . . . . .	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . . . .	1	6	7	-	-	-	-	-	-	-	-	-	-	3	3
Senile psychoses . . . . .	3	14	17	-	-	-	-	-	-	-	-	-	-	-	-
Involuntional psychoses . . . . .	10	26	36	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc. . . . .	10	7	17	-	-	-	-	-	-	-	-	-	-	1	1
Due to new growth . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system . . . . .	11	5	16	-	-	-	2	-	2	-	-	-	1	1	2
Psychoneuroses . . . . .	3	9	12	-	-	-	-	-	-	1	1	-	-	-	-
Manic-depressive psychoses . . . . .	8	27	35	-	-	-	-	1	1	-	4	4	-	5	5
Dementia praecox . . . . .	40	48	88	-	-	-	5	5	10	7	5	12	11	14	25
Paranoia and paranoid conditions . . . . .	6	11	17	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality . . . . .	-	4	4	-	-	-	-	1	1	-	-	-	-	2	2
With mental deficiency . . . . .	8	3	11	1	-	1	2	1	3	1	1	2	1	-	1
Undiagnosed psychoses . . . . .	2	14	16	-	-	-	-	-	-	-	1	1	-	2	2
Without psychoses . . . . .	48	25	73	-	2	2	5	2	7	4	-	4	6	2	8
Total . . . . .	327	377	704	1	2	3	14	10	24	12	12	24	21	30	51

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued*

PSYCHOSES	30-34 years			35-39 years			40-44 years			45-49 years			50-54 years			55-59 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	1	1	2	4	-	4	1	-	1	2	2	4	4	-	4	3	-	3
With other forms of syphilis . . . . .	-	-	-	2	-	2	-	-	-	-	1	1	-	-	-	-	-	-
With epidemic encephalitis . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
With other infectious diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-
Alcoholic psychoses . . . . .	3	2	5	5	-	5	6	-	6	4	3	7	9	4	13	7	-	7
Due to drugs, etc. . . . .	-	-	-	-	1	1	1	-	1	-	-	-	-	-	-	-	-	-
Traumatic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	1	1	1	-	1	-	-	-
With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	-	1	1	2	3	5	8	17	25
With other disturbances of circulation . . . . .	-	-	-	-	-	-	2	-	2	-	-	-	-	1	1	-	-	-
With convulsive disorders (epilepsy) . . . . .	-	-	-	-	-	-	-	1	1	-	2	2	-	-	-	1	-	1
Senile psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Involuntional psychoses . . . . .	-	-	-	-	2	2	-	2	2	2	10	12	4	8	12	2	3	5
Due to other metabolic diseases, etc. . . . .	-	-	-	3	2	5	-	2	2	2	-	2	1	-	1	1	-	1
Due to new growth . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system . . . . .	-	-	-	1	-	1	-	1	1	2	-	2	2	2	4	2	1	3
Psychoneuroses . . . . .	1	2	3	1	2	3	-	1	1	-	1	1	1	2	3	-	-	-
Manic-depressive psychoses . . . . .	-	2	2	1	6	7	3	2	5	-	2	2	1	3	4	2	1	3
Dementia praecox . . . . .	6	7	13	5	8	13	3	4	7	2	1	3	1	2	3	-	-	-
Paranoia and paranoid conditions . . . . .	-	1	1	-	1	1	1	1	2	2	2	4	2	1	3	-	2	2
With psychopathic personality . . . . .	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency . . . . .	-	-	-	2	1	3	-	-	-	-	-	-	1	-	1	-	-	-
Undiagnosed psychoses . . . . .	-	-	-	-	2	2	1	-	1	-	4	4	1	2	3	-	1	1
Without psychoses . . . . .	2	1	3	2	3	5	6	5	11	2	2	4	3	1	4	1	1	2
Total . . . . .	13	16	29	26	29	55	24	20	44	18	32	50	34	30	64	28	26	54

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	60-64 years			65-69 years			70-74 years			75-79 years			80-84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	2	-	2	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
With other forms of syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With epidemic encephalitis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	2	2	4	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Due to drugs, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	17	19	36	26	27	53	21	36	57	17	29	46	13	15	28	8	10	18
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	-	3	3	-	2	2	-	5	5	1	-	1	-	2	2	1	2	3
Involutional psychoses	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	2	2	4	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Due to new growth	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dementia praecox	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	1	2	3	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Without psychoses	5	3	8	3	1	4	5	1	6	3	-	3	1	1	2	-	-	-
Total	33	35	68	33	33	66	26	43	69	21	29	50	14	18	32	9	12	21

TABLE 8. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	T <sup>Total</sup>			Illiterate			Reads Only			Reads and Writes			Common School			High School			College			Unknown			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.				
With syphilitic meningo-encephalitis . . . . .	18	4	22	1	1	2	-	-	-	1	-	1	8	3	11	6	-	-	6	1	-	1	1	-	-
With other forms of syphilis . . . . .	2	1	3	-	-	-	-	-	-	-	-	-	2	1	3	-	-	-	-	-	-	-	-	-	-
With epidemic encephalitis . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases . . . . .	39	11	50	-	-	-	-	-	-	4	-	4	23	7	30	9	2	11	-	-	-	-	3	2	5
Alcoholic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to drugs, etc. . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses . . . . .	112	157	269	11	16	27	-	2	2	11	16	27	50	65	115	7	14	21	-	-	-	-	-	-	-
With cerebral arteriosclerosis . . . . .	2	1	3	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	29	40	69
With other disturbances of circulation . . . . .	3	6	9	1	1	2	-	-	-	-	-	-	1	3	4	-	-	-	-	-	-	-	1	1	1
With convulsive disorders (epilepsy) . . . . .	13	14	17	1	1	2	-	-	-	-	-	-	1	7	7	-	-	-	-	-	-	-	2	3	5
Senile psychoses . . . . .	10	26	36	1	3	4	-	-	-	2	2	2	5	12	17	3	6	9	-	-	-	-	2	3	5
Involuntary psychoses . . . . .	10	7	17	1	1	2	-	-	-	1	-	1	7	1	8	-	-	-	-	-	-	-	1	1	3
Due to other metabolic diseases, etc. . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	4
Due to new growth . . . . .	11	5	16	1	-	1	-	-	-	3	-	3	5	1	1	-	-	-	-	-	-	-	2	-	-
With organic changes of nervous system . . . . .	3	9	12	-	-	-	-	-	-	-	-	-	3	5	1	6	8	-	-	-	-	-	2	-	-
Psychoneuroses . . . . .	8	27	35	-	-	-	-	-	-	1	-	1	3	16	19	3	9	12	-	-	-	-	1	1	2
Manic-depressive psychoses . . . . .	40	48	88	-	-	-	-	-	-	1	4	5	25	20	45	9	21	30	4	1	5	1	1	2	3
Dementia praecox . . . . .	6	11	17	-	-	-	-	-	-	2	-	2	2	6	8	1	3	4	1	-	1	-	2	2	2
Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality . . . . .	8	3	11	3	1	4	-	-	-	-	-	-	2	1	5	-	-	-	-	-	-	-	-	-	-
With mental deficiency . . . . .	2	14	16	-	-	-	-	-	-	1	1	2	1	7	8	-	-	-	-	-	-	-	2	-	2
Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Without psychoses . . . . .	48	25	73	1	3	4	-	-	-	2	1	3	32	11	43	4	3	7	-	4	-	4	5	7	12
Total . . . . .	327	377	704	20	26	46	-	2	2	28	26	54	173	172	345	43	73	116	14	8	22	49	70	119	-



TABLE 10. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Dependent			Marginal			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . .	18	4	22	2	—	2	16	3	19	—	1	1
With other forms of syphilis . . .	2	1	3	2	—	2	—	1	1	—	—	—
With epidemic encephalitis . . .	—	1	1	—	—	—	—	1	1	—	—	—
With other infectious diseases . . .	1	1	2	—	—	—	1	—	1	—	1	1
Alcoholic psychoses . . .	39	11	50	10	—	10	26	11	37	3	—	3
Due to drugs, etc. . .	1	1	2	—	—	—	1	1	2	—	—	—
Traumatic psychoses . . .	1	1	2	—	—	—	1	1	2	—	—	—
With cerebral arteriosclerosis . . .	112	157	269	31	39	70	58	93	151	23	25	48
With other disturbances of circulation . . .	2	1	3	1	—	1	1	1	2	—	—	—
With convulsive disorders (epilepsy) . . .	1	6	7	—	2	2	1	3	4	—	1	1
Senile psychoses . . .	3	14	17	—	5	5	3	7	10	—	2	2
Involuntional psychoses . . .	10	26	36	2	1	3	8	22	30	—	3	3
Due to other metabolic diseases, etc. . .	10	7	17	1	1	2	9	4	13	—	2	2
Due to new growth . . .	1	—	1	—	—	—	1	—	1	—	—	—
With organic changes of nervous system . . .	11	5	16	2	—	2	8	5	13	1	—	1
Psychoneuroses . . .	3	9	12	—	1	1	3	8	11	—	—	—
Manic-depressive psychoses . . .	8	27	35	3	2	5	5	24	29	—	1	1
Dementia praecox . . .	40	48	88	6	4	10	34	42	76	—	2	2
Paranoia and paranoid conditions . . .	6	11	17	—	3	3	6	6	12	—	2	2
With psychopathic personality . . .	—	4	4	—	—	—	—	4	4	—	—	—
With mental deficiency . . .	8	3	11	7	2	9	1	1	2	—	—	—
Undiagnosed psychoses . . .	2	14	16	—	2	2	2	9	11	—	3	3
Without psychoses . . .	48	25	73	6	7	13	41	14	55	1	4	5
Total . . .	327	377	704	73	69	142	226	261	487	28	47	75

TABLE 11. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Abstinent			Temperate			Intemperate			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . .	18	4	22	2	—	2	8	1	9	6	3	9	2	—	2
With other forms of syphilis . . .	2	1	3	—	1	1	1	—	1	1	—	1	—	—	—
With epidemic encephalitis . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
With other infectious diseases . . .	1	1	2	—	1	1	—	—	—	—	—	—	1	—	1
Alcoholic psychoses . . .	39	11	50	—	—	—	—	—	—	39	11	50	—	—	—
Due to drugs, etc. . .	1	1	2	—	1	1	—	—	—	1	—	1	—	—	—
Traumatic psychoses . . .	1	1	2	—	—	—	—	1	1	1	—	1	—	—	—
With cerebral arteriosclerosis . . .	112	157	269	24	84	108	40	25	65	20	11	31	28	37	65
With other disturbances of circulation . . .	2	1	3	—	—	—	—	—	—	2	—	2	—	1	1
With convulsive disorders (epilepsy) . . .	1	6	7	1	4	5	—	1	1	—	—	—	—	1	1
Senile psychoses . . .	3	14	17	1	7	8	1	5	6	1	—	1	—	2	2
Involuntional psychoses . . .	10	26	36	2	19	21	6	3	9	1	1	2	1	3	4
Due to other metabolic diseases, etc. . .	10	7	17	2	2	4	2	2	4	5	1	6	1	2	3
Due to new growth . . .	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
With organic changes of nervous system . . .	11	5	16	2	3	5	7	1	8	—	—	—	2	1	3
Psychoneuroses . . .	3	9	12	—	5	5	2	—	2	1	1	2	—	3	3
Manic-depressive psychoses . . .	8	27	35	3	12	15	2	12	14	2	1	3	1	2	3
Dementia praecox . . .	40	48	88	20	28	48	9	14	23	11	2	13	—	4	4
Paranoia and paranoid conditions . . .	6	11	17	1	7	8	3	3	6	2	—	2	—	1	1
With psychopathic personality . . .	—	4	4	—	1	1	—	1	1	—	1	1	—	1	1
With mental deficiency . . .	8	3	11	4	3	7	2	—	2	—	—	—	2	—	2
Undiagnosed psychoses . . .	2	14	16	—	4	4	1	5	6	1	—	1	—	5	5
Without psychoses . . .	48	25	73	14	10	24	9	4	13	21	7	28	4	4	8
Total . . .	327	377	704	77	193	270	93	78	171	115	39	154	42	67	109









TABLE 13. *Mental Disorders of All Admissions, All Discharges, All Deaths, 1939, All Cases in Residence and All Cases Out on September 30, 1939, by Status of Admission and Sex — Concluded*

	ALL ADMISSIONS			ALL DISCHARGES			ALL DEATHS			RESIDENT POPULATION			PATIENTS OUT ON VISIT, ETC.		
	First Admissions	Readmissions		First Admissions	Readmissions		First Admissions	Readmissions		First Admissions	Readmissions		First Admissions	Readmissions	
MENTAL DISORDERS															
Dementia praecox (schizophrenia):															
Simple type . . . . .	7 1 8	4 4	4 7	5 1 6	5 1 6		4 4	3 3	3 3	20 7 27	16 10 26	2 2	2 2	1 1	1 1
Hebephrenic type . . . . .	5 6 11	4 3 7	4 11	4 4 4	4 5 9		4 4 5	1 1 1	3 3 3	54 68 122	40 69 109	2 3 5	2 3 5	4 4 7	4 4 7
Catatonic type . . . . .	9 6 15	7 4 11	4 11	4 4 8	4 3 7		1 4 5	2 2 2	1 1 1	30 33 63	32 33 65	10 4 14	10 4 14	6 1 7	6 1 7
Paranoid type . . . . .	11 26 37	11 13 24	13 24	6 12 18	3 3 6		3 3 6	2 2 4	2 2 4	85 97 182	78 107 185	8 11 19	8 11 19	5 8 13	5 8 13
Other types . . . . .	8 9 17	9 4 13	13 13	1 6 7	5 2 7		1 1 1	—	—	10 3 13	11 9 20	2 3 5	2 3 5	10 10	10 10
Paranoia . . . . .	—	—	—	—	—		—	—	—	1 1 2	—	—	—	—	—
Paranoid conditions . . . . .	6 11 17	3 4 7	7 3	1 13 14	2 3 5		2 7 9	1 1 1	1 1 1	27 102 129	12 45 57	5 10 15	5 10 15	2 4 6	2 4 6
With psychopathic personality . . . . .	—	4 4	—	1 3 4	1 4 5		—	—	—	—	5 9 14	—	—	2 2	2 2
With mental deficiency:															
Idiot . . . . .	—	—	—	—	—		1 1 1	—	—	—	1 1 2	—	—	—	—
Imbecile . . . . .	4 2 6	4 3 7	7 7	—	1 1 1		2 2 2	1 1 1	1 1 1	17 13 30	14 18 32	3 3 3	3 3 3	—	—
Moron . . . . .	—	1 1	3 5 8	2 2 4	2 6 8		—	—	—	14 13 27	23 26 49	2 2 4	2 2 4	6 5 11	6 5 11
Unknown . . . . .	4 1 4	1 1 2	—	—	1 1 1		—	—	—	3 4 7	3 7 10	—	—	—	—
Undiagnosed Psychoses	2 14 16	1 5 6	6 6	—	3 3 3		—	—	—	2 5 7	1 3 4	2 3 3	2 3 3	—	—
Without Psychoses:															
Alcoholism . . . . .	7 4 11	5 5 10	10 10	6 4 10	6 6 12		—	—	—	1 1 1	—	—	—	—	—
Drug addiction . . . . .	—	—	2 2	1 1 1	2 2 2		—	—	—	—	—	—	—	—	—
Disorders due to epidemic encephalitis . . . . .	1 1 1	—	—	1 1 1	—		—	—	—	—	—	—	—	—	—
Psychopathic personality:															
With asocial or amoral trends . . . . .	9 9 9	12 1 13	13 13	10 10 10	1 11 11		—	—	—	—	2 2 2	—	—	—	—
Mixed types . . . . .	1 1 1	1 1 1	1 1	2 2 2	1 1 1		—	—	—	—	—	—	—	—	—
Epilepsy . . . . .	—	—	—	—	—		—	—	—	—	—	—	—	—	—
Mental deficiency:															
Idiot . . . . .	—	—	—	2 1 3	2 1 3		1 1 1	—	—	—	—	—	—	—	—
Imbecile . . . . .	1 3 4	2 1 3	3 4 6	1 3 4	2 1 3		—	—	—	—	—	—	—	—	—
Moron . . . . .	1 1 2	2 2 4	4 6	2 1 3	2 3 5		—	—	—	—	1 1 1	—	—	—	—
Other non-psychotic diseases or conditions . . . . .	11 5 16	4 4 4	4 4	9 4 13	4 4 4		1 1 1	—	—	—	—	—	—	—	—
No other condition . . . . .	17 12 29	4 10 14	14 14	16 12 28	5 10 15		—	—	—	—	—	—	—	—	—
Grand Total . . . . .	327 377 704	164 170 334	334 334	234 265 499	127 128 255		110 138 248	20 34 54	20 34 54	600 742 1,342	413 567 980	93 102 195	93 102 195	61 73 134	61 73 134

Note:—Admissions and discharges do not include transfers.

TABLE 13-A. *Mental Disorders of Readmissions, 1939, by Sex*

MENTAL DISORDERS	READMISSIONS		
	M.	F.	T.
With syphilitic meningo-encephalitis	4	5	9
Alcoholic psychoses	20	3	23
Due to drugs, etc.	—	1	1
With cerebral arteriosclerosis	19	21	40
With other disturbances of circulation	—	1	1
With convulsive disorders (epilepsy)	5	5	10
Senile psychoses	1	2	3
Involucional psychoses	5	9	14
Due to other metabolic diseases, etc.	—	1	1
With organic changes of nervous system	4	2	6
Psychoneuroses	4	1	5
Manic-depressive psychoses	24	50	74
Dementia praecox	35	24	59
Paranoia and paranoid conditions	3	4	7
With psychopathic personality	—	3	3
With mental deficiency	9	9	18
Undiagnosed psychoses	1	5	6
Without psychoses	30	24	54
Total	164	170	334

TABLE 14. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	TOTAL			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	7	6	13	1	3	4	5	2	7	1	1	2
With other infectious diseases	1	—	1	—	—	—	1	—	1	—	—	—
Alcoholic psychoses	56	20	76	45	16	61	10	4	14	1	—	1
Due to drugs, etc.	1	2	3	1	2	3	—	—	—	—	—	—
Traumatic psychoses	3	1	4	—	1	1	3	—	3	—	—	—
With cerebral arteriosclerosis	91	88	179	30	18	48	40	42	82	21	28	49
With other disturbances of circulation	2	3	5	1	1	2	1	1	2	—	1	1
With convulsive disorders (epilepsy)	6	4	10	3	2	5	2	2	4	1	—	1
Senile psychoses	3	10	13	2	2	4	1	3	4	—	5	5
Involucional psychoses	6	16	22	2	4	6	3	8	11	1	4	5
Due to other metabolic diseases, etc.	4	9	13	1	3	4	1	3	4	2	3	5
Due to new growth	1	1	2	—	—	—	1	1	2	—	—	—
With organic changes of nervous system	10	3	13	3	1	4	5	—	5	2	2	4
Psychoneuroses	6	9	15	3	4	7	3	3	6	—	2	2
Manic-depressive psychoses	38	87	125	21	33	54	13	37	50	4	17	21
Dementia praecox	37	43	80	7	6	13	24	25	49	6	12	18
Paranoia and paranoid conditions	3	16	19	1	5	6	2	7	9	—	4	4
With psychopathic personality	2	7	9	2	3	5	—	3	3	—	1	1
With mental deficiency	4	11	15	2	7	9	2	3	5	—	1	1
Undiagnosed psychoses	—	8	8	—	—	—	—	1	1	—	7	7
Without psychoses	80	49	129	—	—	—	—	—	—	—	—	—
Total	361	393	754	125	111	236	117	145	262	39	88	127

TABLE 15. *Hospital Residence During This Admission of First Admissions Discharged During 1939*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	7	6	13	1.83	3.74	2.72
With other infectious diseases . . . . .	1	—	1	.04	—	.04
Alcoholic psychoses . . . . .	38	17	55	2.20	4.47	2.90
Due to drugs, etc. . . . .	1	1	2	.12	.20	.16
Traumatic psychoses . . . . .	2	1	3	.74	.37	.62
With cerebral arteriosclerosis . . . . .	78	80	158	.66	.48	.54
With other disturbances of circulation . . . . .	2	3	5	.12	.52	.36
With convulsive disorders (epilepsy) . . . . .	1	3	4	.12	.09	.10
Senile psychoses . . . . .	2	8	10	3.93	1.28	1.81
Involitional psychoses . . . . .	5	10	15	3.19	4.60	4.13
Due to other metabolic diseases, etc. . . . .	4	9	13	.10	.39	.30
Due to new growth . . . . .	1	1	2	.04	.04	.04
With organic changes of nervous system . . . . .	8	3	11	.47	.72	.54
Psychoneuroses . . . . .	2	9	11	.04	.06	.06
Manic-depressive psychoses . . . . .	12	36	48	1.57	2.62	2.36
Dementia praecox . . . . .	16	29	45	.43	.97	.78
Paranoia and paranoid conditions . . . . .	1	13	14	.71	1.44	1.38
With psychopathic personality . . . . .	1	3	4	.46	7.88	6.03
With mental deficiency . . . . .	2	3	5	.41	5.50	3.46
Undiagnosed psychoses . . . . .	—	5	5	—	.04	.04
Without psychoses . . . . .	50	25	75	.09	.07	.08
Total . . . . .	234	265	499	.88	1.45	1.18

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Mental Disorders

CAUSES OF DEATH	Total		With syphilitic meningitis or encephalitis		With other forms of syphilis		With other infectious diseases		Alcoholic psychoses		Traumatic psychoses		With cerebral arterio-sclerosis		With convulsive disorders (epilepsy)		Senile psychoses	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Infectious and Parasitic Diseases:</i>																		
Erysipelas . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis of the respiratory system . . . . .	13	4	17	1	-	-	1	-	1	-	-	-	1	2	3	1	1	1
Tuberculosis of other organs . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Disseminated tuberculosis . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syphilis (non-nervous forms) . . . . .	2	3	5	2	1	3	-	1	1	-	-	-	-	-	-	-	-	-
Purulent infection, septicaemia (non-puerperal) . . . . .	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other infectious diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-
<i>Cancer and Other Tumors:</i>																		
Cancer and other malignant tumors . . . . .	6	17	23	-	-	-	-	-	1	1	2	-	3	8	11	-	-	-
<i>Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases:</i>																		
Diabetes . . . . .	1	2	3	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
<i>Diseases of the Blood and Blood-Making Organs:</i>																		
Perniciou anemia . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
<i>Diseases of the Nervous System and Organs of Special Sense:</i>																		
Meningitis . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cerebral hemorrhage . . . . .	11	11	22	-	-	-	-	-	2	1	3	-	7	6	13	-	1	1
Cerebral embolism and thrombosis . . . . .	1	5	6	-	-	-	-	-	-	-	-	-	1	4	5	-	-	-
General paralysis of the insane . . . . .	5	3	8	5	3	8	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Circulatory System:</i>																		
Acute endocarditis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
Chronic endocarditis (valvular disease) . . . . .	2	2	4	-	-	-	-	-	1	1	1	-	-	3	3	-	-	-
Diseases of the myocardium . . . . .	-	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diseases of the coronary arteries and angina pectoris . . . . .	10	5	15	-	-	-	1	1	-	-	1	1	5	2	7	-	7	7
Other diseases of the heart . . . . .	48	65	113	1	-	1	-	-	1	1	2	-	39	42	81	-	-	-
Other diseases . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Respiratory System:</i>																		
Bronchitis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bronchopneumonia (including capillary bronchitis) . . . . .	14	19	33	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-
Lobar pneumonia . . . . .	3	5	8	-	-	-	-	-	1	-	1	-	9	9	18	-	1	1
Pleurisy . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	3	3	3	-	-	-
Other diseases (tuberculosis excepted) . . . . .	1	3	4	-	-	-	-	-	-	-	-	-	1	2	3	-	-	-
<i>Diseases of the Digestive System:</i>																		
Diarrhea and enteritis . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hernia, intestinal obstruction . . . . .	3	1	3	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-
Cirrhosis of the liver . . . . .	1	-	1	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-









TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses

PSYCHOSES*	TOTAL			0-14 years		15-19 years		20-24 years		25-29 years		30-34 years		35-39 years		40-44 years						
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.				
With syphilitic meningo-encephalitis	12	6	18	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-				
With other forms of syphilis	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
With other infectious diseases	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-				
Alcoholic psychoses	10	4	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Traumatic psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
With cerebral arteriosclerosis	71	91	162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
With convulsive disorders (epilepsy)	-	3	3	-	-	-	-	-	-	-	-	1	1	-	-	-	2	2				
Senile psychoses	3	9	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Involutional psychoses	-	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Due to other metabolic diseases, etc.	5	2	7	-	-	-	-	-	-	-	-	-	-	1	2	3	-	-				
With organic changes of nervous system	5	5	10	-	-	-	-	-	-	-	-	-	-	1	1	2	1	-				
Manic-depressive psychoses	7	15	22	-	-	-	-	-	-	-	-	-	-	1	2	3	1	-				
Dementia praecox	7	17	24	-	-	-	-	1	1	-	-	-	-	1	1	2	2	-				
Paranoia and paranoid conditions	2	8	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
With psychopathic personality	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
With mental deficiency	4	2	6	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-				
Without psychoses	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Total	130	172	302	-	1	1	1	-	2	-	2	-	1	2	1	3	4	5	9	2	5	7

PSYCHOSES	45-49 years		50-54 years		55-59 years		60-64 years		65-69 years		70-74 years		75-79 years		80-84 years		85 years and over							
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.						
With syphilitic meningo-encephalitis	-	1	1	3	-	3	4	2	6	1	-	1	1	3	-	-	-	-						
With other forms of syphilis	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
With other infectious diseases	-	-	-	1	-	1	-	-	-	1	3	4	2	-	2	1	-	-						
Alcoholic psychoses	-	-	-	-	1	1	2	4	1	3	4	-	-	-	-	-	-	-						
Traumatic psychoses	-	-	-	-	-	-	-	1	1	12	11	23	16	19	35	10	16	26						
With cerebral arteriosclerosis	-	-	-	1	3	4	9	13	10	23	12	11	23	16	19	35	10	16	26					
With convulsive disorders (epilepsy)	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	1	2	3						
Senile psychoses	-	2	2	-	-	-	1	1	1	1	1	1	2	1	2	3	1	2	3					
Involutional psychoses	-	-	-	-	-	-	2	2	2	1	1	1	2	2	2	1	1	1						
Due to other metabolic diseases, etc.	-	1	1	-	-	-	1	1	1	1	1	1	2	2	2	1	1	1						
With organic changes of nervous system	2	2	4	1	1	2	2	2	4	2	2	4	7	1	1	1	1	1						
Manic-depressive psychoses	4	4	8	1	1	2	2	2	4	1	6	7	-	1	1	1	1	1						
Dementia praecox	1	1	2	1	3	-	5	2	2	2	2	2	-	2	1	3	-	-						
Paranoia and paranoid conditions	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-						
With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-						
Without psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Total	3	9	12	9	2	11	25	20	45	18	26	44	21	29	50	15	21	36	16	19	35	3	11	14

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital During All Admissions Classified According to Principal Psychoses*

PSYCHOSES	Total			Less than 1 month		1-3 months		4-7 months		8-12 months		1-2 years		3-4 years	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	12	6	18	-	-	-	4	1	5	1	1	2	1	1	2
With other forms of syphilis	-	2	2	-	-	-	-	1	1	-	-	-	-	-	-
With other infectious diseases	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	10	4	14	1	1	-	-	-	-	1	-	1	-	-	-
Traumatic psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	71	91	162	17	23	40	14	8	22	7	8	15	11	18	29
With convulsive disorders (epilepsy)	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	-	3	3	1	1	2	-	2	2	1	-	1	-	1	1
Involuntal psychoses	-	9	12	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	-	5	5	1	2	3	3	-	3	-	-	-	-	-	-
With organic changes of nervous system	-	5	5	1	1	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	7	13	20	2	2	4	1	1	2	1	1	2	3	2	2
Dementia praecox	7	17	24	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	2	8	10	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	4	2	6	-	-	-	-	-	-	-	-	-	-	-	-
Without psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Total	130	172	302	25	27	52	21	15	36	11	14	25	17	32	49

PSYCHOSES	5-6 years			7-8 years		9-10 years		11-12 years		13-14 years		15-19 years		20 years and over	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	1	-	1	1	-	1	-	-	-	-	-	-	1	-	-
With other forms of syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	3	-	3	-	-	-	-	-	-	1	1	2	1	1	3
Traumatic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	1	9	10	1	4	5	1	1	2	1	1	-	1	1	1
With convulsive disorders (epilepsy)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
Involuntal psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	1	-	1	1	1	2	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	1	-	1	-	-	-	-	-	-	2	2	2	1	4	5
Dementia praecox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Without psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	8	10	18	4	7	11	2	5	7	5	5	10	3	10	13

TABLE 19. *Average Length of Hospital Residence During the Present Admission of First Admissions in Residence on September 30, 1939*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	30	9	39	5.51	6.38	5.71
With other forms of syphilis	3	2	5	2.79	15.00	7.67
With epidemic encephalitis	1	—	1	2.50	—	2.50
With other infectious diseases	—	3	3	—	4.16	4.16
Alcoholic psychoses	71	22	93	7.90	9.48	8.28
Due to drugs, etc.	1	—	1	3.50	—	3.50
Traumatic psychoses	3	—	3	3.14	—	3.14
With cerebral arteriosclerosis	111	134	245	2.69	2.42	2.54
With other disturbances of circulation	1	—	1	.44	—	.44
With convulsive disorders (epilepsy)	8	6	14	8.24	13.33	10.42
Senile psychoses	6	29	35	5.49	6.21	6.08
Involuntional psychoses	12	29	41	3.29	4.27	3.98
Due to other metabolic diseases, etc.	2	1	3	1.97	3.50	2.72
With organic changes of nervous system	14	8	22	5.06	2.35	4.07
Psychoneuroses	3	4	7	6.50	3.23	4.63
Manic-depressive psychoses	68	144	212	7.21	8.21	7.89
Dementia praecox	199	208	407	13.85	15.38	14.63
Paranoia and paranoid conditions	28	103	131	7.70	9.69	8.26
With psychopathic personality	—	3	3	—	8.48	8.48
With mental deficiency	34	30	64	14.50	11.86	13.26
Undiagnosed psychoses	2	5	7	.44	.44	.44
Without psychoses	3	2	5	.44	.97	.65
Total	600	742	1,342	8.73	9.18	8.98

TABLE 19-A. *Average Length of Hospital Residence During the Present Admission of Readmissions in Residence on September 30, 1939*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	9	9	18	6.83	3.16	5.00
With other forms of syphilis	2	1	3	5.00	17.50	9.16
Alcoholic psychoses	37	5	42	9.01	6.50	8.71
Due to drugs, etc.	1	—	1	7.50	—	7.50
Traumatic psychoses	3	—	3	14.16	—	14.16
With cerebral arteriosclerosis	21	29	50	2.50	2.22	2.34
With other disturbances of circulation	—	1	1	—	.50	.50
With convulsive disorders (epilepsy)	12	14	26	10.50	7.64	8.96
Senile psychoses	1	4	5	.50	8.25	6.70
Involuntional psychoses	6	16	22	2.16	8.25	6.59
Due to other metabolic diseases, etc.	2	4	6	4.50	10.00	8.16
With organic changes of nervous system	8	5	13	4.00	2.50	3.42
Psychoneuroses	3	1	4	2.16	.50	1.75
Manic-depressive psychoses	70	139	209	7.58	8.09	7.92
Dementia praecox	177	228	405	13.34	12.62	12.94
Paranoia and paranoid conditions	12	45	57	7.83	10.58	10.00
With psychopathic personality	5	9	14	6.90	12.27	10.35
With mental deficiency	41	52	93	9.06	6.69	7.73
Undiagnosed psychoses	1	3	4	.50	.50	.50
Without psychoses	2	2	4	.50	.50	.50
Total	413	567	980	9.89	9.54	9.69

TABLE 20. *Family Care Statistics for Year Ended September 30, 1939*

	Males	Females	Total
Remaining in Family Care September 30, 1938	—	2	2
Whole Number of Cases within the Year	—	2	2
Discharged from Family Care within the Year:	—	2	2
Discharged Outright from Family Care	—	2	2
Average Daily Number in Family Care During Year:	—	2	2
Private	—	2	2





# The Commonwealth of Massachusetts

## ANNUAL REPORT

OF THE

## TRUSTEES

OF THE

# BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1940

THE NINETY-NINTH ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION ON ADMINISTRATION AND FINANCE

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### TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council:*

The Board of Trustees of the Boston State Hospital respectfully submit the Annual Report for the year 1940 as follow:

(a) During the statistical year ending September 30, 1940, the institution admitted 1,165 patients, representing the highest admission rate in the history of this hospital or that of any other similar institution in the State. Even with the old C and D Buildings still not used, there is no overcrowding.

(b) It is the policy of the Superintendent to send letters to the nearest relative or friend of every patient who is discharged, goes on visit, or dies while in the hospital. Periodically he writes to relatives of certain groups of patients within the institution. These letters concern the care and treatment given to the patients. The responses have been gratifying and indicate the type of service we are rendering to the public of Boston. The Board of Trustees approved this procedure of contacting periodically the relatives of the patients.

(c) The Board of Trustees regrets that the appropriation which was requested for the building of a tunnel under Morton Street, which separates the two groups of the hospital, was not approved. It is necessary for large groups of patients, in order to pass from one group of the hospital to another, to cross over this busy highway. This situation is hazardous and does not lend itself to the efficient operation of the institution.

(d) The only large Auditorium available in the hospital is one that was built as a kitchen and dining room in 1888. It has a seating capacity of less than 500, while there are approximately 2,300 patients in residence. Much benefit has been derived from the extensive recreational programs which we have provided. Such programs, in our opinion, have aided in the high discharge rate of patients to the community. These programs could be made available to many more of our patients if we had a sufficiently large auditorium to hold at least 2,500 patients.

(e) Stony Brook should be covered. It is a menace to the health of our patients.

(f) During the past year all cooking for the hospital has been done in one large kitchen. There were formerly five kitchens. This centralization of cooking has done much to improve the quality of the food served and to eliminate waste.

Through the death of Dr. Francis J. Callanan on April 14, 1940, the Board of Trustees lost a valued member who had planned to work harmoniously and effectively with his associates on the Board and with the Superintendent to further the best interests of the patients and employees of the institution.

In closing, the Board of Trustees wishes to commend the Superintendent, physicians, department heads, and all other employees for their splendid co-operation and efficient service throughout the year.

Following is the detailed report of Dr. Harold F. Norton, Superintendent.

Respectfully submitted,

ALEXANDER M. SILLIVAN

THOMAS D. RUSSO

JOSEPH J. CARDILLO

HARRY B. BERMAN

CHARLES C. LUND

ANNA C. M. TILLINGHAST

JOSEPHINE E. THURLOW

### REPORT OF THE SUPERINTENDENT

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1940, and the fiscal year ending November 30, 1940. Founded by the City of Boston, in 1839, this marks the completion of its 101st year as a hospital for mental illness, and the thirty-second year of its history as a State institution.

#### MOVEMENT OF POPULATION

The census of the hospital on September 30, 1939, was as follows: in the wards, men, 1,013, women, 1,309, total, 2,322. There were admitted during the year, 614 men, and 551 women, a total of 1,165. There were discharged to the community 264 men and

194 women, a total of 458. Thirty-one men and 9 women were transferred to other institutions. There were 298 deaths during the year, 136 men and 162 women. There were remaining on the books on September 30, 1940, 2,748 patients, of which number 2,372 were residing in the hospital, and 376 on visit or otherwise absent.

#### PERSONNEL

Daniel J. Sullivan, M.D., left the service as Senior Physician on December 6, 1939.  
 John M. Hill, M.D., left the service as Assistant Physician on December 25, 1939.  
 Norris B. Flanagan, M.D., left the service as Senior Physician on December 31, 1939.  
 Dorothy C. V. Heinz, M.D., was appointed Assistant Physician on January 3, 1940.  
 Volta R. Hall, M.D., was appointed Senior Physician on January 4, 1940.  
 Maier I. Tuchler, M.D., was appointed Assistant Physician on March 18, 1940.  
 Maier I. Tuchler, M.D., left the service as Assistant Physician on May 23, 1940.  
 John F. Sullivan, M.D., was promoted from Assistant Physician to Senior Physician on April 8, 1940.  
 Samuel Silverman, M.D., was appointed Assistant Physician on June 3, 1940.  
 Michael A. Grassi, M.D., left the service as Assistant Physician (Temporary) on June 13, 1940.  
 Elizabeth A. O'Leary, M.D., was appointed Assistant Physician on June 24, 1940.  
 Volta R. Hall, M.D., left the service as Senior Physician on June 30, 1940.  
 Timothy L. Curran, M.D., was appointed Assistant Physician (Temporary) on July 1, 1940.  
 Harold L. Stratton, M.D., was appointed Assistant Physician on July 15, 1940.  
 William J. Clauser, M.D., left the service as Assistant Physician on July 22, 1940.  
 Charles J. Hart, M.D., was appointed Assistant Physician on August 1, 1940.  
 Peter P. Gudas, M.D., left the service as Senior Physician on August 3, 1940.  
 John F. Sullivan, M.D., left the service as Senior Physician on August 15, 1940.  
 Ernst Schmidhofer, M.D., left the service as Assistant Physician on August 26, 1940.  
 William M. Shanahan, M.D., was appointed Senior Physician on September 2, 1940.  
 Ralph S. Banay, M.D., left the service as Director of Clinical Psychiatry on September 7, 1940.  
 Charles S. Mullin, M.D., Assistant Physician, returned from a leave of absence and was promoted to Senior Physician on September 10, 1940.  
 Timothy L. Curran, M.D., left the service as Assistant Physician (Temporary) on September 28, 1940.  
 Charles J. Hart, M.D., left the service as Assistant Physician on October 21, 1940.  
 Eleanor H. Beamer, M.D., was appointed Assistant Physician on November 7, 1940.  
 Leo Berman, M.D., was appointed Assistant Physician on November 18, 1940.  
 During the year the following relatively important changes took place in the administrative personnel which should be recorded:  
 Mrs. Rose J. Siciliano, Institution Treasurer, resigned on November 9, 1940.  
 Mrs. Grace L. Broe, Assistant Dietitian, resigned on June 19, 1940.  
 Miss Violet Koskela was appointed to the position of Dietitian on July 29, 1940.  
 Kaen A. Noonan, D.M.D., left the service as Dentist on May 21, 1940.  
 Joseph P. Fleming, D.M.D., was appointed Dentist on May 22, 1940, and resigned on August 19, 1940.

#### NEUROPSYCHIATRIC SERVICE

This division of the institution has continued to function in the same pattern as it has for the past three years. The fundamental purpose of this pattern is to return the patient to the community as rapidly as possible. In order to do this, the neuropsychiatric service embraces a program which includes not only the physician, but the total personnel of the institution and all of its equipment and ingenuity. The patient, therefore, becomes the hub of the pattern, with the spokes and rim of this same pattern being the various branches of the hospital bringing pressure to bear on him to get well and to go home. Thus, the patient receives not only the benefit of psychotherapy, pharmacotherapy, and other special therapies such as insulin, metrazol, and electric shock by the medical staff, but the benefit of physical therapies offered by other hospital departments.

When an individual enters this institution as a patient, he, as a matter of course, receives an intensive neuropsychiatric and physical analysis in the Reception Building. As soon as this is completed and his problem analyzed for treatment the hospital as a unit brings its pressure to bear on him to get well. This pressure is not perceived as

such by the patient, but it is there, nevertheless, pushing him and urging him to recover so that he may return to his home. If the institution could talk to him, he would undoubtedly hear it saying, "You are sick; we know it; you probably do not. You are sick. That is why you are here. We are here for that reason, too—we are here to get you well and to send you home—better for your sickness—better than you were before. We are going to get you well." The patient does not hear this but the forces of recovery are at work. From the kitchen, food of good quality, well prepared and of pleasing appearance, is given him to eat. He must be cleared of any deficiency symptoms due to poor dietary habits. From the laundry are sent clean bed linen and clothing. He must keep his person clean so he is bathed regularly, and showered, and his hair cut. If the individual is a woman, she receives additional attention to her hair and fingernails. The patient, is urged to be clean and tidy, to dress attractively, and to keep his bedding in order. His sleep is facilitated at night in blue lighted rooms and if he is disturbed during the day, he is kept in blue lighted rooms to decrease the irritating influence of sharp, slashing light. He is urged to occupy himself at some type of occupation in industry wherein he can give vent to his creative urges. He is given physical exercise and long walks outside. For the summer he is kept out-of-doors as much as possible to get all of the benefits of sun and fresh air. Entertainment of all types is provided for him. If he cannot leave his building, music, and other entertainment is provided on the ward. If he can leave it, movies, music, singing, vaudeville, and such are provided on the grounds or in an auditorium. He may be taken with groups of other patients to baseball games, hockey games, football, basketball, circuses, theatres, or on sleigh rides in the hills, boat trips on the ocean, beach parties, or bicycle trips.

It is in this manner that he is urged to get well—to go home. He is continually under the pressure of one group or another to be remembered. He is not forgotten and he is not permitted to think that he is. He is not permitted to become a "backwards" individual. It is this type of mass therapy that has been functioning in this institution with results that are reflected in hospital releases.

In order to maintain a high degree of interest in neuro-psychiatric progress, the medical library has continued to obtain important current books and journals. These are constantly available to the staff. Twice a month the medical staff meets as a Journal Club wherein one member presents the interesting articles published and following which there is a general discussion. At irregular intervals speakers of note have been invited to the hospital to give talks in their special fields. At other irregular intervals, and as they are required, members of the staff have gone into the community to give talks on psychiatric problems. They have likewise given planned lecture courses to affiliate nurses. Four clinical psychiatric conferences, one pathological conference, and one neurological conference are held every week.

It is felt that the program of mass therapy, individual selective therapy, and progressive staff stimulation, has done much in this past year to crystallize a progressive program of intra-hospital relationships which has only one aim, i.e., the return of the patient to the community the better for his experience here.

If this is accomplished, and I feel that it is, the hospital is serving the community as it was originally designed to do. If in its enthusiasm to return the patient to the community, it makes errors, these are forgivable, because it, by virtue of these errors, becomes progressive and serves its community in an honest and reliable manner.

#### DENTAL SERVICE

The dental activities at the hospital were conducted under the direction of Kaen A. Noonan, D.M.D., until his resignation on May 21, 1940. During the period May 22, 1940, to August 19, 1940, Joseph P. Fleming, D.M.D., was in charge of the dental service. A vacancy existed in this position from August 20, 1940, until the end of the fiscal year.

During the year, the following work was performed:

Examinations . . . . .	6,194	Restorations . . . . .	48
Extractions . . . . .	1,067	Prophylaxis . . . . .	1,383
Fillings . . . . .	322		

#### SOCIAL SERVICE DEPARTMENT

The Social Service Department has continued under the supervision of Mrs. Lillian S. Irvine, Head Social Worker, assisted by Mrs. Isabel C. Cunningham, Psychiatric Social Worker, and Miss Martha Wolk, Assistant Psychiatric Social Worker. There

were several changes in the personnel of the department. Miss Esther Coleman, who had served as Assistant Psychiatric Social Worker for several years, resigned to attend the Smith College School for Social Work. Miss Mary Dolan was appointed as worker to fill this vacancy. Miss Dolan received a B.S. degree at the Worcester State Teachers' College in 1937 and a M.A. degree at Clark University in Worcester in 1938, and had eight summers' experience at Worcester State Hospital. Miss Margaret L. Kelly also resigned to accept a position as social worker at the Boston City Hospital.

During the summer there were five volunteer workers in the department. Miss Mary Wessling, a senior at Regis College, performed valuable work for the department as a volunteer. It was due to her reports that the department received commendation from the South Boston Court. Miss Dorothy Jones came to us from Simmons College from which she had graduated. She had previous experience at the Boston Dispensary and the Children's Hospital. Miss Eileen A. Kelley was a senior at Emmanuel College and returned to college. She had done volunteer work at the Massachusetts Memorial Hospital. Miss Margaret Walsh was also a student at Emmanuel College and Miss Laura M. Kelly was a student at Pembroke College. This group of volunteer workers, with very slight previous training, rendered the department inestimable service. They worked faithfully and conscientiously.

The follow-up program of the hospital is ever increasing its scope. The Social Service Department made 400 visits to patients on trial visit from the hospital and at least 1,000 visits were made by patients to the Out-Patient Department. Patients were aided in their social, vocational, and educational adjustments. The workers offered a word of encouragement, and advised and helped them in their social problems, in an effort to promote good mental hygiene. They assisted with job findings and made home conditions as congenial as possible.

In several instances, patients who had been discharged, contacted the Social Service Department for aid in solving their individual problems. Family friction, lack of satisfactory employment, and ill health were but a few of such problems.

The patients in Family Care, with whom intensive follow-up work is carried on, are kept occupied with household chores in their foster homes. For instance, one knits for the Red Cross; another makes beautiful patchwork quilts and a third is writing her autobiography. Two young people are attending school and making good progress and are prominent in extra-curricular activities. The adjustments of several of these patients are so adequate that they are soon to be discharged from the hospital jurisdiction.

During the year the Social Service Department obtained 1,214 histories and made 178 full investigations of observation and criminal observation cases.

Two-thirds of the histories were obtained at the hospital and one-third outside of the hospital. For several months nearly the entire time of one worker has been taken up with obtaining histories on patients who have no visitors or who have died or have been discharged. In many of these cases much time is spent in locating relatives or friends of these patients. Numerous cases were referred for burial responsibility and in several of these many hours of work were required to index the case, chase down minor clues, and make numerous telephone and personal calls before the responsibility for burial could be correctly placed.

The department feels that its work would be more constructive and effective if there were two more workers.

The following is a summary of the Social Service cases for the year:

	Male	Female	Total
New Cases . . . . .	1,049	1,207	2,256
Renewed Cases from Previous Years . . . . .	251	306	557
Renewed Cases within the Year . . . . .	230	212	442
Continued Cases from Previous Years . . . . .	449	420	869
Closed During Year . . . . .	1,475	1,643	3,118
Cases Continued to Following Year . . . . .	80	67	147

#### PHYSICAL THERAPY DEPARTMENT

This department has functioned under the supervision of Miss Roslind M. Gibbs, a graduate of the Sargent School of Boston University.

The following is a summary of the work of this department for the year:

Number of individual patients treated . . . . .	145
Number of individual employees treated . . . . .	34
Number of different conditions treated . . . . .	58

Total number of conditions treated . . . . .	649
Total number of patients actually treated . . . . .	2,898
Total number of treatments actually given . . . . .	5,368
Number of patients discharged from Physiotherapy . . . . .	131

#### X-RAY DEPARTMENT

At the beginning of the year, the X-Ray Department was under the supervision of Miss M. Claire Gagen. On May 22, 1940, she left the service of the hospital, and from May 28, 1940, to June 13, 1940, the work was carried on by Mrs. Nina Timchenko. Miss M. Hilda Hayes was appointed to the position of X-Ray Technician on July, 5, 1940.

X-Ray examinations and fluoroscopic examinations on patients and employees are ordered by the staff physicians. X-Ray plates are read by Dr. Humphrey L. McCarthy, consulting roentgenologist. Employees working in contact with food or with patients having tuberculosis are X-Rayed at regular intervals.

During the year, the following work was performed:

X-Ray taken . . . . .	2,525	Patients X-Rayed . . . . .	1,854
Fluoroscopic Examinations . . . . .	21	Employees X-Rayed . . . . .	497

#### PATHOLOGICAL LABORATORY

The work of the pathological laboratory has continued under the supervision of Dr. Naomi Raskin. It is felt that two technicians are inadequate for the amount of work necessary for the proper function of this department.

During the year the following work was completed:

Autopsies . . . . .	153	Dick test . . . . .	4
Urinalysis . . . . .	2,228	Throat culture . . . . .	25
Blood Counts: . . . . .		Sputum . . . . .	372
White blood counts . . . . .	1,479	Cholesterols . . . . .	5
Red blood counts . . . . .	1,444	Blood grouping . . . . .	23
Differential counts . . . . .	1,479	Blood matching . . . . .	25
Hemoglobin estimations . . . . .	1,444	Bleeding time and Coagulation time . . . . .	1
Blood sugar determinations . . . . .	388	Vitamin C deficiency . . . . .	1
Non-protein nitrogen . . . . .	45	Ascetic fluid examination . . . . .	1
Spinal fluids . . . . .	421	Platelet count . . . . .	1
Bacteriological slides . . . . .	529	Urine culture . . . . .	1
Stool for occult blood . . . . .	15	Bromides test . . . . .	2
Blood cultures . . . . .	15	Tissues: . . . . .	
Milk analysis . . . . .	30	Paraffin . . . . .	1,428
Icteric indices . . . . .	6	Celloidin . . . . .	3
Van Den Bergh . . . . .	6	Frozen . . . . .	487

#### PSYCHOLOGICAL SERVICE

This department is comprised of two Psychometrists. For the proper functioning of this department, there should be, in addition, a Psychologist, but as yet we have been unable to obtain this position.

The work of the School Clinic has been conducted under the supervision of Dr. Dorothy C. V. Heinz, Assistant Physician.

The statistics of the routine work done by this Department are as follows:

<i>No. of Patients seen.</i> . . . .	635
Binet Tests given . . . . .	306
Bellevue tests . . . . .	
Verbal . . . . .	339
Performance . . . . .	175
Bernreuters . . . . .	275
Bells . . . . .	225
Army Alpha Tests . . . . .	13
Thematic Apperception . . . . .	9

Total number of tests given . . . . .	1,342
Total number of persons seen by department . . . . .	1,201
Total number of tests given . . . . .	2,485

#### *Delinquents (Juvenile):*

Number of cases seen . . . . .	129
Binets given . . . . .	129
Bernreuters given . . . . .	78
Bells given . . . . .	89
Number of tests given . . . . .	296

*School Clinic*

Number of children tested:

Somerville District

227

Everett District

177

## OCCUPATIONAL THERAPY DEPARTMENT

During the year several changes were made in the location of the Occupational Therapy Shops and classes. The Furniture Refinishing Shop was moved from the West Center Building to the first floor of the C Building which offered better facilities for the work and for storage. The classes held in the K Building were moved in September, 1940, to a large shop adjoining the Employees Club. This new shop offers a large, airy, and attractive room for the Occupational Therapy activities. Patients from the B, G, and K Buildings, female, attend classes there and the H-9 Occupational Therapy Shop is devoted entirely to classes for male patients. A new shop for the repairing of furniture was opened on the second floor of the C Building where patients, under the direction of an Occupational Therapist, repair broken furniture. The other shops, East, H-9, were continued during the year. Classes at the Reception Building were held on the male and female wards, with a small shop in the basement used by the worker as an office and a place to prepare work.

Patients in the O Building are visited once a week and quiet games are organized, and books and magazines given out. Light handwork, such as sewing and knitting, is left on the wards for the patients to do under the direction of the nurses. Patients in the infirmary wards and those on other wards who are physically handicapped in the B Building are also left light handwork.

During the summer months, when the patients are out-of-doors, a concerted effort was made to have all patients kept busy at some productive occupation. Large groups of patients were kept busy cleaning the brush out of a wooded section to be used as a camp site for recreational activities for patients. Other groups, male and female, pulled weeds, raked hay, cleaned sections of the grounds of stones and other debris and mowed lawns and weeded flower beds. Those patients unable to do active work shined aluminum trays from the cafeterias and kitchens; other pulled the sterilized hair apart getting it ready for the picking machine. Some of the female patients mended clothing and other light handwork. With the exception of the very feeble, the acutely ill, and those patients on infirmary wards, and about 250 patients who refused to participate, all patients were engaged in some productive activity during the day. Occupational Therapists directed this activity with the cooperation of the Nursing Service.

The Occupational Therapy Department continued to take active part in all the recreational activities for the patients, accompanying groups of patients on their outings outside of the hospital grounds—the picnics at the Blue Hills, the boat trips, trips to the zoo, baseball games, auto races, horse races, etc. Field Days on special legal holidays were organized and directed by the Occupational Therapists with games and competitive races for the patients. They also assisted with the decorating for special holidays and social functions.

Nine issues of the Boston State Hospital News were written, edited, and mimeographed under the direction of the Occupational Therapy Department. The Boston State Hospital News has grown from a small newspaper of a few pages to a much larger issue with a circulation of 1,200.

An exhibition of the work done in the Patients' Art Class was opened on January 25, 1940, in the Auditorium of the Reception Building. This exhibit has received a great deal of notice and favorable comment from artists, psychiatrists, and the general public and articles about the exhibit have appeared in the Boston newspapers.

The Industrial Therapy program, placing of patients in the different hospital industries on a therapeutic basis, has continued to grow and the number of patients working full time in hospital industries has increased.

There have been few changes in the personnel of this Department, with only one resignation during the year. The members of the department, with the permission of the Superintendent, attended a series of lectures given at the Boston Public Library by Dr. Stanley Cobb on "The Borderlines of Psychiatry." These lectures were most interesting and informative.

During the year, 22,879 garments were mended; 979 key cords were made for the use of employees; 308 games were made; 1,604 articles were laundered; 10,065 sponges were

made for the operating room. 6,091 miscellaneous articles were made, 5,927 pieces of furniture were painted, refinished, and sent to the wards.

Following is a summary report of classes and attendance for the year:

Number of classes . . . . .	3,819
Total hours . . . . .	11,953
Total attendance . . . . .	79,875
Total different patients in classes . . . . .	1,051

#### HYDROTHERAPY DEPARTMENT

The Hydrotherapy Department is under the direct supervision of the nursing service and supervised by Miss Mary A. Bresnahan, R.N.

Following is a summary of the department for the year:

The number of patients in wet sheet packs—141. The number of packs—6,095, and the number of hours of packs—5,324:27.

The number of patients in continuous baths—275. The number of baths—9,540, and the number of hours—68,431:46.

#### NURSING SERVICE

Miss Mary Alice McMahon, R.N., Principal of the School of Nursing, has had charge of the nursing service of the hospital. The following is a census of the nursing service for the year ending September 30, 1940:

The hospital was accredited for the training of affiliate nurses and thirteen affiliate nurses from the Mercy Hospital, Springfield, the Henry Heywood Memorial Hospital, Gardner, and the Boston City Hospital, Boston, reported for duty on October 1, 1940, for a course in psychiatric nursing.

	Male	Female	Total
Superintendent of Nurses . . . . .	0	1	1
Assistant Superintendent of Nurses . . . . .	0	2	2
Supervisors—Chief Hospital . . . . .	1	1	2
Supervisors—Assistant (Days) . . . . .	3	10	13
Supervisors—Assistant (Nights) . . . . .	2	7	9
Head Nurses—Registered . . . . .	0	29	29
Head Nurses—Graduate . . . . .	0	0	0
Hydrotherapists . . . . .	3	6	9
Physiotherapists . . . . .	0	1	1
Barbers . . . . .	4	0	4
Charge Attendant Nurses . . . . .	9	21	30
Attendant Nurses . . . . .	103	214	317
<i>Psychiatric Nurses</i>			
Graduate Head Psychiatric Nurses . . . . .	0	18	18
Graduate Psychiatric Nurses . . . . .	0	3	3
Senior Psychiatric Nurses . . . . .	0	0	0
<i>Employed During Year</i>			
Assistant Superintendent of Nurses . . . . .	0	1	1
Registered Nurses . . . . .	0	38	38
Head Graduate Psychiatric Nurses . . . . .	0	8	8
Graduate Psychiatric Nurses . . . . .	0	9	9
Hydrotherapists . . . . .	2	2	4
Charge Attendants . . . . .	0	13	13
Physiotherapists . . . . .	0	1	1
Barbers . . . . .	4	0	4
Attendant Nurses . . . . .	211	239	450
<i>Left During Year</i>			
Assistant Superintendent of Nurses . . . . .	0	0	0
Registered Nurses . . . . .	0	34	34
Charge Attendant Nurses . . . . .	2	7	9
Hydrotherapists . . . . .	0	3	3
Head Graduate Psychiatric Nurses . . . . .	0	6	6
Graduate Psychiatric Nurses . . . . .	0	5	5
Physiotherapist . . . . .	0	0	0
Barbers . . . . .	3	0	3
Attendant Nurses . . . . .	217	218	435
<i>Classes</i>			
Conferences for Supervisors . . . . .			52
Lectures (Special) for Head Nurses—Head Graduate Psychiatric Nurses and Charge Attendant Nurses . . . . .			36
Classes for Attendant Nurses (Male and Female) . . . . .			314
Special Introductory Classes—Registered Nurses . . . . .			38
Special Introductory Classes—Head Graduate Psychiatric Nurses . . . . .			8
Special Introductory Classes—Attendant Nurses (Male and Female) . . . . .			450

#### ENGINEERING DEPARTMENT

This department has continued to function under the supervision of Mr. Thomas J. Henry, Chief Power Plant Engineer.

During the year the following improvements and installation of apparatus, etc., were made:

1. New individual refrigerating units were installed in East Kitchen and in the Bakery.
2. A new air compressor was installed in the Laundry.
3. The 8-inch water main under the new retaining wall in the East Group was relocated.
4. Outside lights were installed over the fire escapes on West E and F Cottages.
5. New blowoff lines, both branches and mains, were installed in the Powerhouse from all boilers to blowdown tank outside.
6. The transformers in the East Kitchen were replaced with a temporary electric supply, line in the West H Building.
7. A new toilet was installed in the Occupational Therapy Department.
8. New Lighting fixtures were installed in the East Employees' Dining Room.
9. A new hot water storage tank was installed in the basement of the West H Building.
10. A steam kettle was installed in the basement of the old center office building for the mixing of water wax.
11. A food mixer was installed in the West Kitchen.
12. The electric stove was replaced in West H-8.
13. The new shower room in the West I Building was completed.
14. A broken shaft on a laundry extractor was replaced.
15. A new underground cable was laid on the Recreation Field.
16. All the necessary piping for the new 1,000 gallon gasoline tank was installed at the storehouse.
17. One 20-inch and six 35-inch ventilating fans were installed in the West Kitchen and Cafeterias.
18. New electric cables supplying Storehouse, Bakery, and East Kitchen were laid under the new retaining wall in the East Group.
19. A new expansion joint was installed in the 8-inch steam main on the East Group at the brook.
20. The ice machine at the West Kitchen was overhauled and new expansion coils, new thermostatic valves, and new condensor tubes were installed.
21. The transformers in West A, B, and H Buildings were checked and filled with oil where needed.
22. Fryolators were installed at the West Kitchen.
23. A coffee urn and table was installed in West H-1.
24. A new K. V. A. transformer was installed in the West Kitchen.
25. A steam coffee urn was installed in East Employees' Cafeteria.
26. A chrome plated railing was installed outside the serving bar in the West A Cafeteria.
27. The installation of new steam mains from the Powerhouse to the West Group was started in August.
28. New bed pan sterilizers were installed in the East O Building.
29. Connections were made in the Powerhouse to supply new steam main.
30. The transformer at the carpenter shop was removed from the side of the building and placed in a new concrete vault and connected.
31. The domestic water line at the East carpenter shop was cut off due to new road construction and a new main was connected.
32. The food kettles in the West Kitchen were changed and piped up.
33. Six new radiators were installed in the West B Building.
34. A motor and wax heater was installed in the West Industrial Shop for the shoe repair machinery.
34. The usual repairs and renewals to the heating system, plumbing system, and the electric system, were carried on during the year.
35. The boilers in the Powerhouse were cleaned and inspected at intervals during the year.
36. New stationary pegs were installed in No. 3 pulverizer and the worn parts in the other pulverizers were replaced as needed.
37. The gasket on the main stop valve of No. 3 boiler was renewed.
38. The transformers in the Powerhouse were checked and new oil added as needed.
39. The lubricating oil in No. 3 turbine was replaced with new oil and the tank cleaned out.



40. The valve gear on No. 2 turbine was cleaned and repacked.
41. Other maintenance work in the Powerhouse was carried on as necessary.

#### GENERAL OPERATIONS

In December, 1939, construction of a new retaining wall between the East Patients' Cafeteria and Storehouse, was started.

The road building project continued in the East Group.

In January, 1940, the D Building started functioning as an Occupational Therapy Center.

The A Cafeteria started to function as a feeding center for disturbed men as well as women and as a result of this it was possible to close the G and I Cafeterias and to bring about further centralization of feeding.

A Domestic Science suite was established in the site of the old East Kitchen.

On March 7, 1940, Dr. Arthur H. Ruggles, Superintendent, Butler Hospital, Secretary-Treasurer of the American Psychiatric Association, and President of the National Committee for Mental Hygiene, visited the hospital.

On March 19, 1940, the hospital was inspected by Dr. Huston K. Spangler, Field Representative, American College of Surgeons, for the purpose of acceptance of the hospital by the American College of Surgeons.

In April, 1940, two Wurlitzer Music Machines were purchased for use in the Hydrotherapy Department in the treatment of our disturbed patients.

A Recordak photo-copying unit was installed for the purpose of creating complete photographic files on 16mm. film of all of the valuable records.

The retaining wall between the Storehouse and the East Kitchen was completed.

On April 19, 1940, Dr. Clifton T. Perkins, Commissioner, Dr. Bardwell H. Flower, Assistant Commissioner, Dr. William C. Gaebler, Dr. Francis H. Sleeper, Dr. Edgar W. Yerbury, Dr. Neil A. Dayton, Mr. C. W. Greenough, Mr. William I. Rose, from the Department of Mental Health, visited the hospital, accompanied by eight hospital superintendents from Canada.

In May, 1940, four W. P. A. Metropolitan District Commission trained recreational directors were assigned to the hospital for the summer months to care for the patients out-of-doors.

A Tree Pruning Project was employed in caring for the trees on the grounds of the institution.

In July, 1940, work on the installation of the new steam lines was started.

In September, 1940, with the aid of the United States Postal Authorities, all alien patients within the institution, were finger-printed and registered.

Work on the new entrance to the East Group from Morton Street was started.

Local Draft Board, No. 29, Ward 14, Precincts 11 to 20, under the chairmanship of Judge David I. Rose, established headquarters at the Administration Building.

The following improvements and repairs were made during the year:

West A Building—Plaster baseboards were installed in the day halls.

East L Building—Porches screened in rear of building.

East M Building—Cement floor laid at front entrance. Partitions installed from day hall to each corridor, Wards 1 and 2.

East N Building—Roof repaired.

East O Building—Roof repaired. Partition installed in basement.

Reception Building—Steps were built from the back porch to the yard in rear of the building. Grills were installed on outside doors.

West Nurses' Home—Roof repaired.

West Kitchen—Red Quarry Tile laid in scullery. Office built for dietitian.

Asphalt tile was laid in the following buildings:

West A Building—Wards, 3, 4, 5, 6, tub room on Ward 1.

West B Building—Wards 3 and 4. Diet Kitchen.

West E Cottage, West F Cottage, G Building.

West H Building—Wards 1, 2, and 7.

West I Building—Small rooms on Wards 3 and 4.

West J Building—Second floor.

East L Building—Small rooms on Wards 1 and 2.

East N Building—Small rooms in rear of Ward 1.

The following were painted:

- West A Building—Cafeteria and stairways.
- West B Building—Wards 1, 2, 3, and 4.
- West H Building—Wards 1, 2, 5, 6, and stairways.
- East L Building—Day halls and stairways.
- East M Building—Day halls and corridors.
- The West kitchen.

Repairs to locks, windows, doors, screens, and plaster, were made whenever necessary, also to the laundry trucks.

Thirty-six polishing blocks were made, 12 coat racks built, 1,000 pieces of furniture repaired, 35 door checks repaired and rebuilt, and a wooden fence built around Recreation Field, by the Maintenance Department.

*Clothing and Bedding:* Much valuable work was done by the workers in the Sewing Room, in conjunction with a W. P. A. Project, and the following articles were produced during the year: Bedgowns, 1,855; Curtains (Pairs), 1,917; Dresses, 3,288; Pillow Cases, 4,655; Sheets, 6,114; Shirts, 1,612; Slacks, 1,811; Slips, 2,552; Spreads, 1,505; Towels, 14,112. Many miscellaneous articles were also produced by this department. A total of 71,449 miscellaneous articles of clothing and bedding were mended.

The following is a summary of the articles produced by the Industrial Shop during the year:

Mattresses, 1,476; Pillows, 300; Window Shades, 1,094; 1,927 miscellaneous articles were also produced by this department, and renovations and repairs made on various articles of furniture, shoes, beds, springs, and mattresses.

#### RECREATIONAL THERAPY

The Recreational Programs have continued on an extensive scale and much benefit has been derived by the patients from this form of therapy.

The following is an analysis of this program for the year:

*Art Exhibit:* Art Exhibit by Patients. Tea. Visitors to Hospital. Relatives and friends of patients. 3,000 visitors. Reception Building Auditorium.

*Auxiliaries: American Legion.*—52 Visits, 7 distribution of delicacies and smokes, 12 Dancing Parties, refreshments, entertainment. 52 Luncheons. Mrs. Mary McLaughlin, Chairman.

*Veterans of Foreign Wars:*—52 Visits—Herbert J. Wolfe Post, distribution of Goodies and smokes. Louis D. Brandeis Post; 12 dancing parties, refreshments, entertainment. Lotta Crabtree Post, Passover celebration, Jewish holidays; United Service, Rabbi Moses L. Sedar.

*Bands and Orchestras—American Legion.*—10 Concerts, courtesy, Commanders and Directors.

*Catholic Youth Organizations.*—15 Concerts, courtesy, Reverend Directors.

*Firemen's.*—12 Concerts, courtesy Comm. William A. Reilly.

*Policemen's.*—12 Concerts, courtesy Comm. Joseph F. Timilty.

*Salvation Army.*—10 Concerts, courtesy Col. Edmund Hoffman and Major Leroy Stockman.

*Works Progress Administration.*—250 Concerts, courtesy Massachusetts Music Project—State Supervisor William Haddon.

*Baseball Games.*—“Bees”, 5 games, courtesy of J. Robert Quinn, President.

“Red Sox”, 4 games, courtesy of Mr. Thomas Yawkey.

*St. Brendon's*, 2 games, courtesy of Rev. Fr. Donovan.

*Old Harbor Village.* 2 Games—courtesy of Supervisor John Meade.

*Birthdays.*—Birthday Party of the Month. Music, dancing, entertainment, refreshments. 12 Parties, Mrs. Herbert Channing Huntress, Hostess. (Chairman, Gray Ladies, American Red Cross.)

*Circus.*—Policemen's Circus, courtesy of Joseph F. Timilty, Boston Garden, Boston, Mass.

Ringling Brothers Circus, courtesy of Ringling Brothers, Boston Garden, Boston, Mass.

*Christmas Carollers.*—St. John's and St. Hugh's, Roxbury; St. Leo's, Dorchester; St. Andrew's, Forest Hills; Holy Trinity, Boston; Parkway Community Church, Milton; courtesy—Rectors of Churches.

*Christmas Concert.*—Dorothy Clarke, Director.

*Christmas Dancers.*—Gertrude Dolan Studios; courtesy of Gertrude Dolan.

*Christmas Play.*—Colored Centre of Boston; courtesy of Mother Marie Therese.

*Christmas Concert.*—Choir of St. Andrew's; courtesy of Rev. Charles J. Foley, Chaplain.

*Choral Singing.*—Daily Singing, 365 days; patients.

*Field Days.*—Memorial Day, Bunker Hill Day, Independence Day, Labor Day, Columbus Day. Recreational Grounds, bands furnished by W. P. A. Courtesy of William A. Haddon, State Supervisor. Sports, refreshments.

*Football Games.*—Boston College—Anselm; Boston College—Manhattan. Courtesy of John P. Curley, Graduate Manager of Athletics, Boston College.

*Games.*—Beano, Bridge, Chinese Checkers, Cribbage, Dominoes, Parchesi, Whist—700 games.

*Glee Clubs.*—American Legion, Suffolk County Auxiliary, All Women. Courtesy of John J. Madden, Director.

*Hikes.*—Arnold Arboretum, 15 trips. Franklin Field, 10 Trips. Bowling on Green, Tennis, Tournaments. Courtesy of William P. Long, Park Commissioner.

*Holidays* (dancing parties):—New Year's, Lincoln's Birthday, St. Valentine's, Washington's Birthday, St. Patrick's Day, Patriot's Day, Memorial Day, Bunker Hill Day, Independence Day, Labor Day, Columbus Day, Hallowe'en, Armistice Day, Thanksgiving Day, Christmas Day. Orchestra and Entertainment furnished by W. P. A. Dancing, favors, refreshments.

*Hockey.*—Hockey Games, Boston Garden; 3 trips. Courtesy of Mr. Weston Adams, President.

*Horse Show.*—Horse Races, Suffolk Downs. Courtesy of Suffolk Downs.

*Keith's—RKO.*—Motion Pictures, vaudeville; 6 visits. Courtesy of Mr. John Granara, Publicity Manager.

*Library.*—Boston Public Library, Bowdoin Square Branch. Weekly visits.

*Movies.*—Best Motion Pictures of the Year. 110 showings.

*Plays.* Armistice Week. "You Can't Beat the Irish", Holy Trinity Players of Boston. Courtesy of Rev. H. C. MacLeod, S.J., Holy Trinity Church, Boston.

*Museum.*—Children's Museum, Boston Art Museum, Gardner Museum. 14 visits.

*Picnics.*—Picnic Suppers and Bus rides. Boy Scout Encampment. 16 trips. Blue Hills.

*Quartettes.*—American Legion, John J. Madden, Director.

Immaculate Conception Church, Dorothy Clarke, Director.

Salvation Army, Major Leroy Stockman, Director.

*Radio.*—All Wards—Cafeterias and Hydrotherapy Suites. Hourly, Daily Newscasts. Daily Weather Reports. Daily Concerts (9:00 A.M. and 9:00 P.M.) Wurlitzer Recordings—"Music They Want."

*Radio Skits.*—Visits—Entertainment. George and Dixie, Georgia Mae, Jimmie and Dick, Ruth Moss. Courtesy of WNAC, Boston.

*Recitals.*—Organ. 50 Recitals.

*Soap Box Derby.*—Sight-seeing trips. Box luncheon. Suffolk Downs.

*Sports.*—Seasonal and Daily. Recreational Grounds, East and West Groups. Bicycling, hop-scotch, hoop rolling, kite flying, marbles, quoits, rope jumping, sliding, skating (ice and roller).

*Shore.*—*Bus Trips*, Nantasket, Pemberton, Hull: *Sail*, Nantasket, Pemberton, Hull; courtesy of Nantasket Steamboat Company, Mr. Robert Greene, Mrs. Herbert Channing Huntress, Hostess. Chairman, American Red Cross, Gray Ladies. All Day Sail—Provincetown; courtesy of Cape Cod Steamship Company. Mr. L. L. Day, Manager.

*Fruit and Flower Show.* Horticultural Hall, Boston.

*Swimming.*—Male and female patients (4 times a week). Curtis Hall Gymnasium, Jamaica Plain; courtesy of Commissioner William P. Long.

#### RESEARCH LABORATORY

During the past year the Research Division of the Boston State Hospital carried out researches which are classified as follows:

- I. Human Autonomic Pharmacology and Allied Subjects.
- II. Biochemistry of Alcohol.
- III. Neuropathological Studies.
- IV. Sex Hormone Studies.
- V. Heredity Studies.

## VI. The "Total Push" Method of Chronic Schizophrenia.

## VII. Organization Activities.

### I. *Human Autonomic Pharmacology and Allied Subjects:*

The main activity in this field has been to evaluate new drugs and new methods of administering well known drugs.

(1) We have concluded our work on furfuryl trimethyl ammonium iodide (Furnethide) and our two papers, "The effect of furfuryl trimethyl ammonium iodide on various autonomic functions in man," and "Ocular pharmacology of furfuryl trimethyl ammonium iodide, with special reference to intraocular tension," have appeared on this subject. This drug is parasympathetic in most of its effects and seems to have a valuable field in the treatment of diseases of the eye.

(2) We have been particularly occupied with the slow absorption of drugs. In this connection we have used the drip method on certain of the adrenergic and cholinergic drugs.

(a) The work indicates that by the drip method one may raise the blood pressure, using adrenergic drugs, to a desired level and keep it there by manipulating the rate of administration. This seems to us a valuable method for the treatment of shock and allied conditions.

(b) The parasympathetic drugs may be used in similar fashion to induce sweating and to lower the blood pressure, which would seem to indicate that there is a field for their use in the treatment of kidney disease where both increased excretion and a drop in blood pressure are valuable.

(c) Of particular interest to the laboratory has been the use of gelatin as a solvent for drugs, in order to slow up the absorption rate and to give an effect comparable to the natural production of chemical substances within the body. This has been found to be of particular value in the use of amphetamine sulfate. The undesirable side-effect of blood pressure raise presented by amphetamine sulfate in watery solution can be largely avoided by the use of amphetamine sulfate in gelatin, and other effects can be greatly prolonged. Thus, the gastrointestinal relaxation lasts far longer than when the drug is administered in an aqueous solution, and the relaxation of rigidity in Parkinson's disease is prolonged into clinical usefulness.

(d) In this connection we have been carrying on experiments on Parkinson's disease of encephalitic origin and have found the combination of scopolamine in gelatin and amphetamine sulfate in gelatin of great value, giving results not equalled by any other method of treatment. This work is still going on and, in fact, is in its beginnings.

(3) *Studies on pyruvic acid:* This chemical has lately come into great prominence because of its production as one of the important phases of carbohydrate metabolism. It has been definitely established that vitamin B<sub>1</sub> is instrumental in regulating the amount of pyruvic acid in the organism. We carried on, therefore, experiments of the following types:

(a) To see whether pyruvic acid in excess can produce multiple neuritis. Our experiments indicate definitely that this is the case. This is a new approach to the problem of the production of neuritis.

(b) Given in small doses, it seems to increase the weight of pigeons. In large doses, it acts as a toxic substance, producing severe damage to the organism.

(c) The relationship of this chemical to the use of sugar, insulin, and other substances is as yet quite confused. Our experiments have not yet been successful in elucidating the exact relationship of the quantity of pyruvic acid to the metabolic activities.

(4) *Brain metabolism:* During the past year three studies on the metabolism of the brain were carried out, two of which were completed and one almost completed.

(a) The first study concerned itself with the effect of insulin on the changes in oxygen and sugar of the brain and arm with special reference to these changes following the administration of insulin. It was shown that the brain lags behind the arm in recovering its use of oxygen and sugar. This finding refutes the widely held theory that the improvement following insulin shock therapy is due to increased oxygen and sugar consumption by the brain.

(b) The second study concerned itself with the changes in oxygen, carbon dioxide and sugar contents of the arterial and internal jugular venous blood following metrazol convulsions. This study may be summarized as follows: There is no evidence that cerebral anemia initiates metrazol seizures. During the progress of the convulsion, a

change occurs in cerebral blood flow dependent upon the altered relationship of blood gases and changes in blood pressure. Any change in cerebral blood flow following the convulsion is temporary, as indicated by the return of blood gases to original levels shortly after the convulsion. There is no similarity between insulin hypoglycemia and the metrazol convulsion as regards changes in relationship of dextrose and oxygen. So far as these data are concerned, changes in mental states following metrazol convulsion and insulin hypoglycemia cannot be explained on the basis of any common alteration in either cerebral chemistry or cerebral blood flow.

(c) The third study concerns the comparative effects of nicotinic acid on the cerebral blood flow in the arm as shown by observations of the superficial and deep blood flow of these parts. Differences in oxygen content between the arterial and venous bloods were measured and studies of the cerebrospinal fluid pressure and examination of the retinal vessels were made. It was shown that the marked changes in blood flow occur in the arm in contrast to the cerebral blood flow. Marked changes in oxygen differences between the arteries and veins of the arm occur, while little or no change occurs in the uptake of oxygen by the brain. Furthermore, no change occurs in spinal fluid pressure at the height of the action of nicotinic acid, nor do any changes in diameter of the retinal vessels result following the administration of the drug. It can be concluded from this study that in contrast to the peripheral circulation, the cerebral circulation appears very resistant to changes in the blood flow following the use of nicotinic acid.

## II. *Biochemistry of Alcohol:*

The study of the absorption of alcohol has been one of the main problems which we have attacked during this past year. We have definitely established the fact that the adrenergic substances significantly lower the rate of alcohol absorption from the gastrointestinal tract, and of special interest in this connection is the use of amphetamine sulfate. This is in line with the clinical observations made by others that this drug is valuable in the treatment of acute and chronic alcoholism and, in fact, gives a rational basis for its use.

We are carrying out work on pigeons concerning the effect of alcohol and the treatment of alcoholism. Apparently pigeons become drunk and also develop a tolerance for alcohol very much as human beings do. This gives us an opportunity, which we are going to explore through the next year, to study the relationship of other chemicals to the effects of alcohol.

## III. *Neuropathological Studies:*

During the past year the work of the neuropathological division concerned itself with three main studies: (1) the reproduction of Wernicke's disease in experimental animals; (2) the circulation of the basal ganglia, particularly of the strio-pallidum; and (3) the pathology of athetosis and paralysis agitans.

(1) *The reproduction of Wernicke's disease in experimental animals:* The identity of the lesions produced experimentally by B<sub>1</sub> avitaminosis in pigeons with Wernicke's hemorrhagic polioencephalitis occurring in chronic alcoholism and other conditions in men was proven by a thoroughgoing study of the topographical distribution and of the morphological and histological characteristics of these lesions. In conjunction with other findings published in previous years, this work may be summarized as follows:

(a) Wernicke's hemorrhagic polioencephalitis can be produced with significant regularity in pigeons deficient in vitamin B<sub>1</sub> as a complication of beriberi if large supplies of other vitamins (A, B<sub>2</sub>, C and D) are fed.

(b) If the pigeons are kept on an entirely vitamin-free diet the resulting beriberi will only rarely be complicated by lesions of the Wernicke type.

(c) Wernicke's disease cannot be produced in pigeons receiving crystalline vitamin B<sub>1</sub> (thiamin), although they may be deprived of all other vitamins, or of any one other vitamin for a period of over six months.

(d) These observations suggest that vitamin B<sub>1</sub> possesses antiangiodegenerative properties, in addition to antineuritic properties, and that smaller amounts of vitamin B<sub>1</sub> are sufficient to act as an antiangiodegenerative agent than are necessary for antineuritic action.

(e) The administration of high doses of vitamins A, B<sub>2</sub>, C or D in vitamin B<sub>1</sub> deficiency probably raises the vitamin B<sub>1</sub> requirement of the tissues, and angiodegeneration manifests itself soon after the onset of the neuronal degeneration.

(2) *The circulation of the basal ganglia* was studied by means of postmortem injection according to a method previously published by us. The results of this study showed

that the so-called lenticulo-striate arteries actually supply only the striatum and parts of the internal capsule adjacent to it. They arise from the middle cerebral artery and some of them from the anterior cerebral artery.

The globus pallidus and that part of the internal capsule which is posteriorly adjacent to it are supplied by the so-called anterior choroidal artery which, in addition, also supplies the ammonshorn of the hippocampal gyrus. This artery is a direct branch from the carotid artery, runs posteriorly over a considerable stretch along the basal surface of the brain crossing the optic tract twice, finally enters the brain laterally to or perforating through the posterior end of the optic tract; the part nourishing the pallidum branches off there and recurves anteriorly within the brain substance. Since on the basis of previous studies, we have found that any artery's susceptibility to thrombosis

can be expressed by the equation:  $\left[ \frac{\text{Undivided length,}}{\text{Diameter}} \right]$  this artery can be considered as particularly prone to undergo thrombosis in conditions which favor clotting, such as circulatory disturbances, carbon monoxide poisoning, etc.

(3) *The pathology of athetosis and paralysis agitans*: A careful study of a fairly large number of cases of athetosis reveals a surprising new fact, namely, that the so-called "Marble disease" (status marmoratus, état marbré) of the striatum is not due to a structural lesion such as could be caused by a birth injury, as has been frequently assumed, but due to abnormal course and termination of the fronto-pontine tract (Türk's bundle). In athetosis and torsion dystonia, the fronto-pontine tract enters the striatum instead of the pons, i.e., it connects the frontal lobe with the striatum instead of with the pons. The over-supply of myelinated fibers to the striatum is thereby explained as nothing else but the normal fibers of the fronto-pontine tract which, however, take an abnormal course into the striatum instead of continuing downwards into the pons where they normally belong and where they are missing in cases of athetosis and torsion dystonia. This pathologic finding probably explains the asynergic ponto-cerebellar component in the motor disturbances of athetoid and dystonic patients. It furthermore elucidates the "extra striatal factors" which the Vogt's assumed in spite of their own discovery of the local striatal abnormality. Furthermore, it fits in well with Wilson's physiological conception that the origin of the athetoid and dystonic disturbance would have to be looked for in the frontal lobes. And, again, it explains the fact of Klemme's outstanding success of curing athetosis by operations in the region of the frontal lobes.

The most interesting result of the work relating to paralysis agitans is the time factor. In a series of thoroughly studied clinico-pathologic cases, the fact was established that considerable time elapses between the completion of the lesion and the appearance of Parkinsonian symptoms. This time may vary from three months to two years, the average being about one year. The cause of this time lag was not found to be progression of active inflammatory or other changes.

A noteworthy fact, the significance of which is, however, still quite problematic, is the observation of typical post-encephalitic pathology in patients who during life presented symptoms characteristic of catatonic schizophrenia. Although this observation may mean nothing beyond the fact that a diagnostic error had been made, in one of these cases it can be stated with absolute certainty that no tremor or true rigidity had been present during life. We feel that the study of brains from schizophrenic patients should be reopened on a larger scale than it has been possible up to the present time.

#### IV. *Sex Hormone Studies*:

During the past year the main emphasis of the sex hormone division of the laboratory has been to determine the quantitative relationships of male and female hormones, especially in regard to male homosexuality, as well as its relationship to other conditions.

(1) In regard to *male homosexuality* it may be stated that there are three general types; *First*, the true male homosexual who has no heterosexual desire and who is active in his homosexual drive. This individual tends to have a low male hormone content in his urine and a high female content. In several of our patients the female content has been far above that of the average woman. The *second* type of male homosexual has heterosexual desire, and this is his main avenue of sexual activity. Homosexuality appears incidental to confinement or to character disturbance. Such individuals have normal male and female hormones. A third type of individual is low in sexual drive, often presents endocrinal stigmata, and has a low male and female hormone content.

(2) The general trend in cases of *impotence* is towards a low male and female hormone content in his urine.

(3) *Masturbation* appears to present no special deficiency and, in fact, is often associated with a high content of both male and female hormones.

(4) Certain interesting findings refer to the hormones of *children*. It appears quite certain that the hormone content follows the overt sexual development; that is, it is low in infancy, gradually increases through early childhood, takes a sudden spurt in puberty, reaching its height in early adult life. This is in direct contradiction to the Freudian hypothesis of a very active sexual life or active sexual constitution in infancy and childhood.

(5) In certain *physical* conditions the sexual hormone content seems to be very directly involved. In Mongolism the content is almost nil. In serious thyroid disease, both of the hypo- and hyperthyroid type, there is marked loss of hormones. Similarly with such diverse conditions as scleroderma and diabetes insipidus.

This work is continuing. Recently we have made a contact with the Massachusetts Reformatory in Concord which has furnished us with a great deal of valuable material, and the help of Sing Sing Prison has also been enlisted in this research.

#### V. *Heredity Studies:*

These have been going on mainly at the McLean Hospital and as part of the work of the Committee on Heredity and Eugenics of the American Neurological Association. A first paper is in press which relates to the heredity of members of distinguished families at the McLean Hospital. A control study was made of the members of distinguished families of whom we have no knowledge whatsoever to begin with as to their heredity. A third group of studies concern themselves with the heredity of non-distinguished families whose genealogies are accessible. Certain important results can be recorded:

(1) The family name is very misleading since the name may go on generation after generation, but the stock changes after each admixture.

(2) The family history as given in hospitals is entirely inadequate and never embraces the total amount of mental disease or abnormality in the immediate genealogy, if the term "immediate" includes brothers, sisters, parents, first and second cousins, great uncles, great aunts, as well as grandparents.

(3) If such a spread of individuals is considered, mental disease is found almost equally in our three groups of individuals. It appears that mental disease is omnipresent in the community. Here and there it becomes more marked for one or two generations, then it appears to spread again. Generally speaking, there are no normal family trees if the genealogy of the immediate collaterals as well as the siblings, parents and grandparents is carefully studied.

(4) Finally, there appears to be no real relationship between distinction and mental disease, since it appears conspicuously in all walks of life irrespective of attainment or of social achievement and failure.

#### VI. *The "Total Push" Method in Chronic Schizophrenia*

The total push method, introduced by the director, has been tried for a year in certain of the state institutions and at the McLean Hospital. The results vary according to the energy put into the project. Certain of the state hospitals reported no particular change except some improvement in conduct. Other state hospitals and the McLean Hospital reported a very marked improvement in the condition of the patient, general betterment in the tone of the institution, and some increase in the recovery rate.

On the whole, it seems certain that the total push method does not cure schizophrenia, although it ameliorates it. It appears further that the method probably has value in the acuter psychosis of all types.

#### VII. *Organization Activities:*

(1) The director was elected to membership in the National Research Council of the National Academy of Sciences to represent psychiatry.

(2) The director was appointed chairman of the Committee on Research of the American Psychiatric Association.

(3) The director is now a member of the Research Council of the Surgeon General of the United States Public Health Service and has attended conferences and meetings of this group.

The director and staff wish to acknowledge with thanks the collaboration and co-operation of the Works Progress Administration, Projects No. 180888 and 21176.

## PAPERS PUBLISHED

1. The attitude of neurologists, psychiatrists, and psychologists towards psychoanalysis. *Am. J. Psychiat.* 96:623-641, (Nov.) 1939. (A. Myerson)
2. The social psychology of alcoholism. *Diseases of the Nervous System* 1:1-8, (Feb.) 1940. (A. Myerson)
3. Errors and problems in psychiatry. *Ment. Hyg.* 24:17-35, (Jan.) 1940. (A. Myerson)
4. Total Push Method. III. Schema for the recording of certain important attitudes in chronic schizophrenia. *Am. J. Psychiat.* 96:935-943, (Jan.) 1940. (A. Myerson).
5. Wernicke's Disease. Identity of lesions produced experimentally by B<sub>1</sub> avitaminosis in pigeons with hemorrhagic polioencephalitis occurring in chronic alcoholism in man. *Am. J. Pathol.* 15:61-69, (Jan.) 1940. (L. Alexander).
6. "Pigeon Dermatitis", A vitamin B deficiency state with anemia. *Am. J. Med. Sci.* 199:518-539, (Apr.) 1940. (W. Dameshek and P. G. Myerson.)
7. Metrazol convulsions: Changes in oxygen, carbon dioxide and sugar contents of arterial and of internal jugular venous blood. *Arch. Neurol. & Psychiat.* 43:682-692, (Apr.) 1940. (J. Loman, M. Rinkel and A. Myerson.)
8. Alcohol: A study of social ambivalence. *Quart. J. Studies on Alcohol* 1:13-20, (June) 1940. (A. Myerson.)
9. Neuroses and alcoholism amongst the Jews. *Medical Leaves* 3:104-107, 1940. (A. Myerson.)
10. The effect of amphetamine sulfate (benzedrine sulfate) and paradrine hydrobromide upon sodium amytal narcosis. *New England J. Med.* 221:1015-1019 (Dec. 28) 1939. (A. Myerson, J. Loman, M. Rinkel, and M. F. Lesses.)
11. The synergism of phenobarbital, dilantin sodium and other drugs in the treatment of institutional epilepsy. *J. A. M. A.* 114:480-484, (Feb. 10), 1940. (B. Cohen, N. Showstack and A. Myerson.)
12. The effect of furfuryl trimethyl ammonium iodide on various autonomic functions in man. *J. Pharmacol. & Exper. Therap.* 68-476-481, (Apr.) 1940. (A. Myerson, M. Rinkel, J. Loman and W. Dameshek.)
13. Pharmacology of cholinergic and adrenergic drugs. *Bulletin of New England Medical Center* 2:127-130, (Apr.) 1940. (J. Loman.)
14. The rationale of amphetamine (benzedrine) sulfate therapy. *Am. J. Med. Sci.* 199:729-737, (May) 1940. (A. Myerson.)
15. Effect of iontophoresis on the eye with special reference to intraocular tension. *Arch. Ophth.* 24:761-764 (Oct.) 1940. (W. Thau and A. Myerson.)
16. Ocular pharmacology of furfuryl trimethyl ammonium iodide, with special reference to intraocular tension. *Arch. Ophth.* 24:758-760. (Oct.) 1940. (A. Myerson and W. Thau.)
17. Psychosomatics and somatopsychics. *Psychiat. Quart.* 14:665-675 (Oct.) 1940. (A. Myerson.)
18. Quantitative sex hormone studies in homosexuality, childhood, and various neuropsychiatric disturbances. *Am. J. Psychiat.* 97:524-551 (Nov.) 1940. (R. Neustadt and A. Myerson.)

## PAPERS IN PRESS

1. Sugar and oxygen metabolism of the brain during and after insulin hypoglycemia. (J. Loman) *Arch. Neurol. & Psychiat.*
2. Pharmacological studies in experimental alcoholism. I. The effect of sympathomimetic substances on the blood-alcohol level in man. (M. Rinkel and A. Myerson). *J. Pharmacol. & Exper. Therap.*
3. Intravenous drip administration of autonomic drugs. (A. Myerson and J. Loman.) *New England J. Med.*
4. Experience with electric shock therapy in mental disease. (A. Myerson, L. Feldman and I. Green.) *New England J. Med.*
5. The incidence of manic-depressive psychosis in certain socially important families. Preliminary report. (A. Myerson and R. D. Boyle.) *Am. J. Psychiat.*

## PAPERS READ

1. Alcoholism as a major public health problem. (Read by A. Myerson before the Research Council on Problems of Alcohol. (A.A.A.S.) New York City December 6, 1939.
2. Pharmacology of cholinergic and adrenergic drugs. (Read by J. Loman before the Boston Dispensary, January 25, 1940.



3. Recent advances in the treatment of epilepsy and schizophrenia. (Read by A. Myerson before the Greater Boston Medical Society, January 2, 1940.)

4. The effects of alcohol on the nervous system. (Read by L. Alexander before the Boston State Hospital, January 3, 1940.)

5. The mechanism of motion. (Read by A. Myerson before the Boston State Hospital, January 10, 1940.)

6. Metabolism of brain in insulin hypoglycaemia as demonstrated by internal jugular puncture method. (Read by J. Loman before the Boston Society of Psychiatry and Neurology, January 18, 1940.)

7. Results of total push method. (Read by A. Myerson, K. Tillotson, L. Maletz, W. Corwin before the Boston Society of Psychiatry and Neurology, January 18, 1940.)

8. Human autonomic pharmacology and eye signs. (Read by A. Myerson before the Boston City Hospital, Neurological Staff, January 26, 1940.)

9. Psycho-physiological approach to the psychoneuroses. (Read by A. Myerson before the Metropolitan State Hospital, March 4 and 11, 1940.)

10. Mental Hygiene. (Read by A. Myerson before Tufts College, March 8, 1940.)

11. Medical ethics. (Read by A. Myerson at the George Washington Gay Lecture, Tufts College Medical School, March 15, 1940.)

12. Heredity. (Read by A. Myerson before Harvard Medical School, Psychiatric Seminar, March 20, 1940.)

13. Study of the sex hormones in the urine in various neuropsychiatric conditions. (Read by R. Neustadt and A. Myerson before the Boston Society of Psychiatry and Neurology, March 21, 1940.)

14. Red and green lights of activity. (Read by A. Myerson before the American Association of Health and Physical Education, Boston, March 27, 1940.)

15. The incidence of manic-depressive psychosis in certain socially important families. Preliminary report. (Read by A. Myerson and R. D. Boyle before the Massachusetts Psychiatric Society, April 5, 1940.)

16. Clinical uses of pharmacological drugs. (Read by J. Loman before the St. Joseph's Hospital, Lowell, April 11, 1940.)

17. Divergent social attitudes of husbands and wives. (Read by A. Myerson before the New York State Conference on Marriage and the Family, New York City, April 13, 1940.)

18. Eugenic sterilization and the inheritance of mental disease. (Read by A. Myerson before the Boston Lying-in-Hospital Journal Club, April 16, 1940.)

19. Somato-psychics (and psycho-somatics): a critical re-appraisal and restatement of the body-mind (and mind-body) problem. (Read by A. Myerson at the thirtieth annual meeting of the American Psychopathological Association, Cincinnati, Ohio, May 19, 1940.)

20. Sex hormones in the urine of the child. (Read by A. Myerson and R. Neustadt at the sixty-sixth annual meeting of the American Neurological Association, Rye, New York, June 7, 1940.)

21. Sugar and oxygen metabolism of the brain during and after insulin hypoglycemia. (Read by J. Loman at the sixty-sixth annual meeting of the American Neurological Association, Rye, New York, June 7, 1940.)

21. Sugar and oxygen metabolism of the brain during and after insulin hypoglycemia. (Read by J. Loman at the sixty-sixth annual meeting of the American Neurological Association, Rye, New York, June 7, 1940.)

22. Theory and practice of human autonomic pharmacology. (Read by A. Myerson at the round table on "The Allergic Constitution" of the American Society for the Study of Allergy, New York City, June 11, 1940.)

23. Total Push. (Read by A. Myerson before the American Occupational Therapy Association, Boston, September 17, 1940.)

24. Psychiatry and its relation to dental problems. (Read by A. Myerson before Oral Surgery Staff, Boston City Hospital, at Harvard Club, November 4, 1941.)

25. Pharmacological studies in experimental alcoholism. (Read by M. Rinkel before the Massachusetts Society for Research in Psychiatry, Westborough State Hospital, on November 14, 1940.)

26. The male homosexual: hormonal and clinical studies. (Read by A. Myerson, R. Neustadt, and I. P. Rak before the Boston Society of Psychiatry and Neurology, November 1, 1940.)

27. The study of the urinary sexual hormones with special reference to male homosexuality. (Read by A. Myerson before the Beth Israel Hospital, November 23, 1940.)

#### FINANCIAL STATEMENT

The appropriation for maintenance for the past year was \$1,143,221.04, plus an amount of \$335.13, brought forward from 1939, making a total of \$1,143,556.17. The expenditures amounted to \$1,110,395.51. The difference between the expenditures and the appropriation represent the proportion of the \$200,000.00 cut in the Mental Health allowance allocated to this institution, giving a weekly cost per patient of \$9.097. This was for an average of 2,347.24 patients.

The estimate for maintenance for 1941, based on a patient population of 2400 is as follows:

Personal Services . . . . .	\$ 635,000.00
Travel, transportation and office expenses . . . . .	10,450.00
Food . . . . .	237,138.00
Clothing and materials . . . . .	31,600.00
Religious instruction . . . . .	2,080.00
Furnishings and household supplies . . . . .	34,500.00
Medical and general care . . . . .	28,000.00
Heat and other plant operations . . . . .	118,311.00
Farm . . . . .	.....
Garage and grounds . . . . .	8,535.00
Repairs ordinary . . . . .	16,100.00
Repairs and renewals . . . . .	22,590.00
	<hr/>
	\$1,144,304.00

#### RECOMMENDATIONS

To continue the efficient functioning of this institution, and to provide adequate care and treatment for the patients, the following improvements should be made.

A serious menace to the health and safety of the patients is an open stream which passes through our property. The stream drains unclean areas in addition to the cemetery, and from this point of view is dangerous to the health of the patients. The water is deep enough to drown in. It is my opinion that this stream should be completely covered over on the hospital property. The cost of this would be approximately \$100,000.00.

There are five stucco buildings on the hospital grounds, all designed to house patients. Three of them are being used for this purpose at the present time. The buildings have adequate fire escapes and water sprinkling systems, but a hazard remains in the old electrical wiring which cannot be repaired. All of this wiring should be removed from these buildings and new wiring installed. The cost of this will be approximately \$50,000.00.

The entire electrical system of the hospital is fed by one power plant. The interruption of the flow of electricity from the power plant shuts down all electrical lighting, machinery, and appliances. If this happens at night, the entire hospital is thrown into total darkness. I feel that the most vulnerable part of this system should be protected, i.e., the power lines from the power plant should be placed underground. They are now strung overhead. The cost of placing these lines underground would be approximately \$40,000.00.

The hospital property is divided by an arterial highway, which creates a serious hazard relative to the movement of the patient population across it. This movement of the patient population is necessary because of the location of our industries, the presence of an auditorium on one side of the street, and the recreation field upon the other. In order to eliminate the danger from the automobile traffic, I feel that a tunnel should be bored under Morton Street and a passageway made there under to handle the hospital traffic. The cost of this would be approximately \$60,000.00.

With the exception of a few buildings in the East Group, none of the buildings in the hospital are connected with each other or with the patients' dining rooms. This means that the patients must go out of doors to their meals, regardless of the weather. This movement of patients is equally true of the transfer from one building to another. It is my opinion that this movement can be handled in only one manner, i.e., the erection of tunnels inter-connecting buildings and connecting buildings with the dining rooms. The cost of this work would be approximately \$85,000.00.

The entertainment program at this hospital for the benefit of the patients is carried out on an extensive scale. The only large auditorium available is one which has a seating capacity of less than 500, located in the East Group. This necessitates a long walk for the patients from the West Group who attend the entertainments, and it is also necessary for them to cross the dangerous intersection at Morton and Harvard Streets. A large auditorium should be erected in the West Group. This building would cost approximately \$192,000.00.

In view of the fact that the admission rate of this institution has increased from 777 patients in 1933, at which time the last physician was added to the hospital staff, to 1,165 during the year of 1940, and because one of the ward physician positions, namely that of a Senior Physician, was converted to that of a Director of Clinical Psychiatry, there is very definitely a disproportion between the number of hospital physicians and patients today as compared with 1933. At that time this institution conformed to the standards of the American Psychiatric Association relative to the ratio between physicians and patients. In order to bring the present physician-patient ratio within the standards of the American Psychiatric Association, the importance of which is only too obvious, it is my feeling that there should be added to the Medical Staff one Senior and three Assistant Physicians.

The necessity is made even more obvious when it is considered that we have established in this institution a night physician whose entire time is taken up with work at night, an out-patient department which during the year of 1940 saw over a thousand patients, and the fact that there has been a material increase in the number of juvenile delinquent examinations which we are requested to do. Furthermore, the type of neuropsychiatric work which has been performed in the past several years has been of a more meticulous nature and of greater volume than ever before, thereby increasing the load on the existing staff physicians tremendously.

Although the load on the stenographic department handling the records, correspondence, etc., relative to patients has been proportionately increased with the increase in admissions, juvenile delinquents, school clinic examinations, more detailed neuropsychiatric examinations, admission routines, etc., over a period of years, there has not been an addition to the stenographic force in this particular field since 1936. It is not necessary to call attention to the fact that the addition of this stenographer in 1936 was not sufficient to satisfy the existing need at that time and had been requested for several years previously. When one considers the volume of work that must be turned out by an individual in the stenographic department it at once becomes quite obvious that the load is entirely out of proportion with any one stenographer's capacity in this respect. Although it was formerly possible for one clerk to carry on all of the statistical work connected with the patient population, this has now become an impossibility and requires two or even three clerks. Since we do not have help enough to supply these extra clerks the statistical work is continually falling behind, thus retarding other departments who depend on these reports. It is my opinion that four Junior Clerks and Stenographers should be added to the stenographic force.

Never in the history of this institution has there existed a position for a Psychologist although the need for one has always existed. The present force of two psychometrists is entirely occupied with the psychometric examinations of patients, juvenile delinquents, and the testing of children in the School Clinic. Proper psychological evaluation of patients is impossible under the present system and the need for a trained psychologist is great.

A large majority of our 735 employees are residents of the City of Boston, and many of them live within a short distance of the hospital. It is unfair to give them maintenance at this hospital which they are unable to accept because of the nearness of their homes. It is my impression that these employees should be given money in lieu of maintenance. Such an arrangement would make several new buildings available for the use of the patients. In this manner the eight years' required residence in Boston could be lowered. These buildings, with very little expense, could be converted for the use of patients.

#### CONCLUSION

I wish to extend my thanks to the members of the Board of Trustees for their cooperation and helpfulness at all times during the past year and to assure them that it has been appreciated by me.

The death of Dr. Francis J. Callanan of the Board of Trustees, on April 14, 1940, was a great loss.

I wish also to thank the medical staff, the various department heads, and all of the employees for all they have contributed to the health and happiness of our patients during the past year.

Respectfully submitted,

HAROLD F. NORTON,  
Superintendent.

### VALUATION

November 30, 1940  
REAL ESTATE

Land, 224.66 acres	\$ 974,100.00
Buildings and betterments	3,821,613.20
	<u>\$4,795,713.20</u>

### FINANCIAL REPORT

*To the Department of Mental Health:*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1940.

#### STATEMENT OF EARNINGS

Board of Patients	\$ 76,115.65
Personal Services	324.27
Sales:	
Food	\$392.74
Furnishings and household supplies	17.83
Medical and general care	8.00
Garage and grounds	3.00
Repairs ordinary	242.61
Miscellaneous	82.06
Total Sales	<u>\$746.24</u>

Total earnings for the year	\$77,186.16
Total cash receipts reverting and transferred to the State Treasurer	77,193.16
Accounts receivable outstanding Dec. 1, 1939	\$7.00
Accounts receivable, decreased	7.00

#### MAINTENANCE APPROPRIATION

Balance from previous year, brought forward	\$335.13
Appropriation, current year	\$1,143,221.04
Total	<u>\$1,143,556.17</u>

Expenditures as follows:	
Personal services	\$629,865.04
Food	229,228.13
Medical and general care	29,995.33
Religious instruction	2,080.00
Heat and other plant operation	105,727.49
Travel, transportation and office expenses	10,091.33
Garage and grounds	6,434.43
Clothing and materials	31,206.88
Furnishings and household supplies	34,400.42
Repairs ordinary	15,599.48
Repairs and renewals	15,765.98

Total maintenance expenditures \$1,110,394.51

Balances of maintenance appropriation, Nov. 30, 1940 33,161.66

#### SPECIAL APPROPRIATIONS

Balance December 1, 1939, brought forward \$81,564.86

Appropriations for current year

Total	\$81,864.86
Expended during the year	\$45,258.80
Reverting to Treasury of Commonwealth	45,258.80

Balance November 30, 1940, carried to next year \$36,306.06

APPROPRIATION	Act or Resolve	Total Amount Appropriated	Expended during fiscal year	Total Expended to date	Balance at end of year
Iron Fence	Yr. Ch.	\$13,000.00	—	—	\$207.78
W.P.A. Material	1937-434	15,000.00	\$6,277.92	\$10,401.21	\$4,598.79
Hurricane and Flood Damages	1938-397	14,000.00	—	—	1,380.47
Fire Protection	1937-234	62,200.00	—	—	1,608.56
Renewing and renovating plumbing	1939-309	42,500.00	5,005.47	40,014.13	2,485.87
Steam Lines	1939-309	60,000.00	33,975.41	33,975.41	26,024.59
		<u>\$206,700.00</u>	<u>\$45,258.80</u>	<u>\$84,390.75</u>	<u>\$36,306.06</u>

## PER CAPITA

During the year the average number of patients has been, 2,358.02.  
 Total cost of maintenance, \$1,110,394.51.  
 Equal to a weekly per capita cost of \$9,0557.  
 Total receipts for the year, \$77,193.16.  
 Equal to a weekly per capita of \$.6295.  
 Total net cost of maintenance for year, \$1,033,201.35.  
 Net weekly per capita, \$8.4262.

Respectfully submitted,  
 FRIEDA KAPLAN,

*Treasurer.*

Financial statement verified.

Approved: WALTER S. MORGAN, *Comptroller.*

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION, PRESCRIBED BY  
 THE MASSACHUSETTS DEPARTMENT OF MENTAL HEALTH

TABLE 1. *General Information*

(Data correct at end of institution year November 30, 1940)

Date of opening as a hospital for mental diseases, December 11, 1839.

Type of hospital: State.

Hospital plant:

Value of hospital property:

Real estate, including buildings	\$4,795,713.20
Personal property	Not valued

Total

Total acreage of hospital property owned, 224.66.	\$4,795,713.20
---	----------------

Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents	1	—	1	—	—	—
Assistant physicians	10	4	14	3	—	3
Clinical assistants	1	—	1	—	—	—
Total physicians	12	4	16	3	—	3
Stewards	1	—	1	—	—	—
Resident dentists	—	—	—	1	—	1
Pharmacists	1	—	1	—	—	—
Graduate nurses	—	88	88	—	—	—
Other nurses and attendants	134	224	358	6	10	16
Occupational therapists	4	11	15	1	1	2
Social workers	—	4	4	—	1	1
All other officers and employees	126	97	223	4	3	7
Total officers and employees	278	428	706	15	15	30

September 30, 1940

Census of Patient Population at end of year:

	Actually in Hospital			Absent from Hospital but still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane	1,018	1,254	2,272	151	215	366
Mental defectives	1	3	4	—	—	—
All other cases	6	1	7	—	—	—
Total	1,025	1,258	2,283	151	215	366
OTHER RACES:						
Insane	44	43	87	5	5	10
Mental defectives	1	—	1	—	—	—
All other cases	—	1	1	—	—	—
Total	45	44	89	5	5	10
Grand Total	1,070	1,302	2,372	156	220	376

	M.	F.	T.
Patients under treatment in occupational-therapy classes, including physical training, on date of report	508	732	1,240
Patients in occupational therapy classes, including physical training, and employed also in general work of hospital	867	1,045	1,912
Patients employed in general work only	359	313	672
Voluntary patients admitted during year	6	3	9
Persons given advice or treatment in out-patient clinics during year	243	761	1,004

TABLE 2. *Movement of Patient Population for the Year Ended September 30, 1940*

	TOTAL			REGULAR COURT COMMITMENT INSANE			TEMPORARY CARE		OBSERVATION		VOLUNTARY	
	M.	F.	T.	M.	F.	T.	M.	F.	M.	F.	T.	T.
Patients on books at beginning of year:												
In institution	1,013	1,309	2,322	1,005	1,302	2,307	-	1	8	2	10	-
On visit	148	174	322	148	174	322	-	-	-	-	-	4
On escape	6	1	7	6	1	7	-	-	-	-	-	-
Total	1,167	1,484	2,651	1,159	1,477	2,636	-	1	8	2	10	-
Admissions during year:												4
First admissions	432	363	795	294	265	559	62	58	120	37	109	5
Readmissions	169	180	349	115	138	253	28	24	52	17	42	2
Total admissions	601	543	1,144	409	403	812	90	82	172	55	151	7
Transfers from other mental hospitals	13	8	21	13	8	21	-	-	-	-	-	9
Total received during year	614	551	1,165	422	411	833	90	82	172	55	151	16
Total on books during year	1,781	2,035	3,816	1,581	1,888	3,469	90	83	173	104	57	13
Discharged from books during year:												
As recovered	90	65	155	64	51	115	7	1	8	18	10	3
As improved	148	181	329	122	154	276	21	17	38	4	8	1
As unimproved	55	43	98	19	10	29	32	32	64	3	1	2
As without psychosis	95	53	148	1	4	5	24	22	40	68	27	2
Total discharged to community	388	342	730	206	219	425	84	72	156	93	46	5
Transferred to other mental hospitals	31	9	40	31	9	40	-	-	-	-	-	10
Died during year within hospital	136	102	238	131	143	279	2	6	8	3	11	-
Died on escape, visit or family care (not added in total)	-	-	-	2	5	7	-	-	-	-	-	-
Total discharged, transferred and died during year	555	513	1,068	368	376	744	86	78	164	96	54	10
Patients remaining on books of hospital at end of year:												
In institution	1,070	1,302	2,372	1,057	1,293	2,350	4	5	9	8	3	1
On visit	147	205	352	147	205	352	-	-	-	-	-	2
On escape	2	1	3	2	1	3	-	-	-	-	-	-
In family care	7	14	21	7	14	21	-	-	-	-	-	-
Total	1,226	1,522	2,748	1,213	1,513	2,726	4	5	9	8	3	1

## SUPPLEMENTARY DATA

	Males			Females			Total
Average daily number of patients on books during year							
Actually in institution during year	1,189.78			1,320.02			2,690.93
On visit	1,034.81			1,74.33			2,854.83
On escape	148.36			.86			322.69
In family care	5.49			6.35			6.35
Number of patients actually remaining in institution September 30, 1940:	1.12			5.94			7.06
State							
Reimbursing	1,004			1,149			2,153
Ex-service patients paid by Federal Government	66			152			218
Number of patients in family care September 30, 1940:	7			1			1
State				14			21
Number of non-insane patients in hospital at end of institution year:							
Mentally defective	2			3			5
Others	6			2			8

TABLE 3. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States†	262	219	481	118	111	89	100	96	80
Austria	—	—	—	2	3	2	1	1	1
Belgium	2	1	3	2	2	2	1	1	1
Canada*	43	39	82	54	61	45	51	50	39
China	1	—	1	2	1	1	—	—	—
Denmark	1	—	1	1	1	1	—	1	—
England	8	7	15	13	14	10	9	6	4
Finland	1	—	1	1	—	1	—	—	—
France	—	1	1	2	—	—	1	1	1
Germany	5	—	5	14	9	9	8	9	7
Greece	4	1	5	5	5	5	2	1	1
Hungary	—	—	—	—	—	—	1	1	1
Ireland	35	55	90	94	104	86	105	107	97
Italy	27	15	42	38	36	36	23	22	22
Norway	1	1	2	1	2	1	2	1	1
Poland	5	8	13	8	9	8	8	9	8
Portugal	2	1	3	5	3	3	1	2	1
Russia	9	7	16	18	16	16	20	20	19
Scotland	6	3	9	9	8	7	9	6	6
Sweden	8	2	10	9	8	8	4	4	3
Switzerland	—	—	—	—	1	—	—	—	—
Wales	—	—	—	1	—	—	—	—	—
West Indies†	1	—	1	2	2	1	2	2	1
Other Countries	11	1	12	15	14	14	3	1	1
Unknown	—	2	2	18	21	18	12	22	11
Total	432	363	795	432	432	363	363	363	305

†(Persons born in Hawaii, Porto Rico and the Virgin Islands should be recorded as born in the United States)

\*Includes Newfoundland.

†Except Cuba, Porto Rico and Virgin Islands.

TABLE 4. *Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born*

AGE AT ADMISSION	NATIVE BORN																							
	Aggregate						PARENTAGE																	
							Total						Foreign			Mixed			Native			Unknown		
													M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0-14 years	4	3	7	4	3	7	2	1	3	1	-	1	1	2	3	-	-	-						
15-19 years	16	16	32	16	15	31	9	6	15	3	3	6	4	5	9	-	1	1						
20-24 years	26	19	45	24	18	42	11	12	23	6	1	7	6	5	11	1	-	1						
25-29 years	29	20	49	25	16	41	17	10	27	-	1	1	8	4	12	-	1	1						
30-34 years	30	17	47	25	14	39	9	6	15	7	3	10	9	5	14	-	-	-						
35-39 years	30	30	60	22	22	44	11	7	18	2	5	7	9	9	17	-	1	1						
40-44 years	33	24	57	22	22	44	7	7	14	6	6	12	8	9	18	1	-	1						
45-49 years	34	27	61	19	13	32	6	8	14	4	-	4	8	5	13	1	-	1						
50-54 years	24	31	55	6	16	22	4	8	12	-	3	3	2	4	6	-	1	1						
55-59 years	29	24	53	15	11	26	6	1	7	5	3	8	3	5	8	1	2	3						
60-64 years	42	32	74	22	11	33	9	4	13	3	2	5	7	4	11	3	1	4						
65-69 years	46	28	74	25	15	40	8	3	11	4	1	5	12	7	19	1	4	5						
70-74 years	38	39	77	14	22	36	7	9	16	1	3	4	4	7	11	2	3	5						
75-79 years	28	26	54	11	8	19	4	5	9	1	-	1	3	2	5	3	1	4						
80-84 years	18	18	36	10	8	18	3	4	7	4	-	4	3	3	6	-	1	1						
85 years and over	5	9	14	2	4	6	-	1	1	-	-	-	1	3	4	1	-	1						
Total	432	363	795	262	218	480	113	92	205	47	31	78	88	79	167	14	16	30						

TABLE 4. *Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born—Continued*

Age At Admission	FOREIGN BORN												Nativity Unknown		
	Total	TIME IN UNITED STATES BEFORE ADMISSION													
		5-9 years			10-14 years			15 years and over			Unknown				
		M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.		T.	
0-14 years	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
20-24 years	2	1	3	-	-	-	-	-	-	2	1	3	-	-	-
25-29 years	4	4	8	1	-	1	2	1	3	1	3	4	-	-	-
30-34 years	5	3	8	-	-	-	1	1	2	4	2	6	-	-	-
35-39 years	8	8	16	-	-	-	-	1	1	7	7	14	1	-	1
40-44 years	11	2	13	-	-	-	1	-	1	10	2	12	-	-	-
45-49 years	15	14	29	-	-	-	-	-	-	15	14	29	-	-	-
50-54 years	18	15	33	-	-	-	-	-	-	18	15	33	-	-	-
55-59 years	14	12	26	-	-	-	-	-	-	14	12	26	-	-	1
60-64 years	20	20	40	-	-	-	-	-	-	19	20	39	1	-	1
65-69 years	21	13	34	-	-	-	-	1	1	20	11	31	1	1	2
70-74 years	24	17	41	-	-	-	1	-	1	22	14	36	1	3	4
75-79 years	17	18	35	-	-	-	-	1	1	16	14	30	1	3	4
80-84 years	8	10	18	-	-	-	-	-	-	7	10	17	1	-	1
85 years and over	3	5	8	-	-	-	-	-	-	3	5	8	-	-	-
Total	170	143	313	1	-	1	5	6	11	158	130	288	6	7	13

TABLE 5. *Citizenship of First Admissions*

	M.	F.	T.
Citizens by birth	264	220	484
Citizens by naturalization	76	60	136
Aliens	47	52	99
First papers	9	2	11
Citizenship unknown	36	29	65
Total	432	363	795

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	TOTAL			With syphilitic meningo-encephalitis			With other forms of syphilis			Alcoholic psychoses			Due to drugs, etc.			Traumatic psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	22	28	50	3	2	5	-	-	-	2	1	3	-	-	-	-	-	-
Armenian	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chinese	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish	1	1	2	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
English	32	22	54	-	-	-	1	-	1	3	1	4	-	-	-	1	-	1
Finnish	1	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
French	5	2	7	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-
German	10	6	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greek	6	1	7	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew	17	24	41	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Irish	116	111	227	3	1	4	-	-	-	24	3	27	-	-	-	1	-	1
Italian*	36	23	59	3	-	3	-	-	-	5	-	5	-	-	-	-	-	-
Lithuanian	8	2	10	-	-	-	-	-	-	3	-	3	-	-	-	-	-	-
Portuguese	4	1	5	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian†	11	6	17	-	1	1	-	-	-	3	-	3	-	-	-	-	-	-
Scotch	10	8	18	-	1	1	-	-	-	2	-	2	-	-	-	-	-	-
Slavonic‡	14	8	22	1	-	1	-	-	-	2	1	3	-	-	-	1	-	1
Syrian	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Welsh	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Mixed	133	119	252	6	4	10	-	1	1	22	8	30	-	-	-	-	-	-
Race unknown	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	432	363	795	20	9	29	1	1	2	69	15	84	-	1	1	3	-	3

\*Includes "North" and "South."

†Norwegians, Danes and Swedes.

‡Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.



TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses—Continued*

RACE	With cerebral arterio-sclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Senile psychoses			Involuntional psychoses			Due to other metabolic diseases, etc.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	2	5	7	—	—	—	—	—	—	1	3	4	—	2	2	—	1	1
Armenian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch and Flemish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	9	7	16	—	—	—	1	—	1	2	3	5	—	3	3	2	—	2
Finnish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
German	3	1	4	—	—	—	—	—	—	3	—	3	—	1	1	—	—	—
Greek	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	2	3	5	—	—	—	—	—	—	—	—	—	—	1	1	2	—	2
Irish	35	45	80	—	1	1	—	2	2	6	13	19	2	11	13	4	3	7
Italian*	5	5	10	—	—	—	—	1	1	3	1	4	—	3	3	4	—	4
Lithuanian	1	—	1	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Portuguese	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian†	4	1	5	—	—	—	—	—	—	—	1	1	—	—	—	1	—	1
Scotch	4	2	6	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Slavonic‡	3	—	3	—	—	—	—	—	—	1	—	1	—	2	2	—	—	—
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Welsh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	30	29	59	1	—	1	1	1	2	5	8	13	5	11	16	2	6	8
Race unknown	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Total	102	98	200	1	1	2	2	4	6	22	31	53	7	34	41	16	11	27

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses—Continued*

RACE	Due to new growth			With organic changes of nervous system			Psycho-neuroses			Manic-depressive psychoses			Dementia praecox			Paranoia and paranoid conditions		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	2	3	5	—	2	2	1	2	3	4	2	6	—	1	1
Armenian	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Chinese	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1	—	—	—
Dutch and Flemish	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
English	—	—	—	2	1	3	—	3	3	—	1	1	4	1	5	1	—	1
Finnish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	1	—	1	1	—	1	—	1	1	1	—	1	—	2	2
Greek	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	1	1	2
Hebrew	—	1	1	1	1	2	—	3	3	1	8	9	5	4	9	—	2	2
Irish	—	—	—	5	6	11	1	1	2	2	4	6	8	8	16	—	2	2
Italian*	—	—	—	1	—	1	1	—	1	1	3	4	4	7	11	2	—	2
Lithuanian	—	—	—	1	—	1	—	—	—	—	1	1	1	—	1	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	1	1	1	—	1	—	—	—
Scandinavian†	—	—	—	—	—	—	—	—	—	—	1	1	1	1	2	—	1	1
Scotch	1	—	1	—	—	—	2	—	2	—	3	3	—	1	1	—	—	—
Slavonic‡	—	—	—	1	—	1	—	—	—	—	1	1	3	1	4	—	—	—
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Welsh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	—	1	1	7	3	10	5	4	9	6	10	16	17	16	33	3	2	5
Race unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1	2	3	22	15	37	9	14	23	13	36	49	52	41	93	8	10	13

\*Includes "North" and "South."

†Norwegians, Danes and Swedes.

‡Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses—Concluded*

RACE	With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychoses			Primary behavior disorders		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	-	-	-	2	2	-	-	-	7	2	9	-	-	-
Armenian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chinese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English	1	-	1	-	-	-	-	-	-	5	2	7	-	-	-
Finnish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
French	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-
Greek	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Hebrew	-	-	-	-	1	1	-	-	-	4	1	5	-	-	-
Irish	2	1	3	1	-	1	-	-	-	21	10	31	1	-	1
Italian*	-	-	-	2	1	3	-	-	-	5	2	7	-	-	-
Lithuanian	-	-	-	-	-	-	1	-	1	1	-	1	-	-	-
Portuguese	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Scandinavian†	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-
Scotch	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Slavonic‡	-	-	-	-	-	-	-	-	-	2	3	5	-	-	-
Syrian	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Welsh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed	2	-	2	1	-	1	1	-	1	20	14	34	-	-	-
Race unknown	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	1	6	5	4	9	2	-	2	71	35	106	1	-	1

\*Includes "North" and "South".

†Norwegians, Danes and Swedes.

‡Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			0-14 years			15-19 years			20-24 years			25-29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	20	9	29	-	-	-	-	-	-	-	-	-	-	-	-
With other forms of syphilis	1	1	2	-	1	1	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	69	15	84	-	-	-	-	-	-	1	-	1	3	2	5
Due to drugs, etc.	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	102	98	200	-	-	-	-	-	-	-	-	-	-	-	-
With other disturbances of circulation	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	22	31	53	-	-	-	-	-	-	-	-	-	-	-	-
Involuntary psychoses	7	34	41	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	16	11	27	-	-	-	-	-	-	-	-	-	2	-	-
Due to new growth	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	22	15	37	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses	9	14	23	-	-	-	3	3	2	2	4	-	-	1	1
Manic-depressive psychoses	13	36	49	-	-	-	1	7	8	1	6	7	5	7	12
Dementia praecox	52	41	93	-	1	1	5	2	7	11	8	19	13	7	20
Paranoia and paranoid conditions	8	10	18	-	-	-	-	-	-	-	-	-	1	-	1
With psychopathic personality	5	1	6	1	-	1	1	-	1	1	1	2	-	-	-
With mental deficiency	5	4	9	1	-	1	2	1	3	1	2	3	-	-	-
Undiagnosed psychoses	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Without psychoses	71	35	106	1	1	2	7	3	10	9	-	9	5	3	8
Primary behavior disorders	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
Total	432	363	795	4	3	7	16	16	32	26	19	45	29	20	49

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses—Continued*

PSYCHOSES	30-34 years			35-39 years			40-44 years			45-49 years			50-54 years			55-59 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo- encephalitis	-	-	-	3	3	6	5	1	6	5	-	5	-	4	4	1	1	2
With other forms of syphilis	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Alcoholic psychoses	7	2	9	7	2	9	12	3	15	7	1	8	8	2	10	13	1	14
Due to drugs, etc.	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Traumatic psychoses	-	-	-	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
With cerebral arterio- sclerosis	-	-	-	-	-	-	-	-	-	3	-	3	-	3	3	9	4	13
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	-	-	-	2	-	2	-	-	-	-	1	1	-	-	-	-	1	1
Senile psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Involuntary psychoses	-	-	-	-	3	3	1	3	4	3	7	10	2	10	12	-	8	8
Due to other metabolic diseases, etc.	1	-	1	-	2	2	1	1	2	3	2	5	1	2	3	1	-	1
Due to new growth	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	1
With organic changes of nervous system	-	1	1	-	2	2	-	1	1	1	1	2	2	3	5	4	3	7
Psychoneuroses	-	-	-	1	1	2	3	4	7	-	-	-	1	-	1	-	1	1
Manic-depressive psychoses	2	5	7	1	5	6	-	3	3	1	2	3	1	1	2	-	-	-
Dementia praecox	10	8	18	7	8	15	4	4	8	2	2	4	-	1	1	-	-	-
Paranoia and paranoid conditions	-	-	-	-	2	2	1	-	1	3	3	6	2	2	4	-	2	2
With psychopathic person- ality	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
With mental deficiency	1	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Undiagnosed psychoses	-	-	-	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
Without psychoses	9	1	10	7	2	9	4	4	8	5	5	10	6	3	9	-	3	3
Primary behavior disorders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	30	17	47	30	30	60	33	24	57	34	27	61	24	31	50	29	24	53

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses—Concluded*

PSYCHOSES	60-64 years			65-69 years			70-74 years			75-79 years			80-84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo- encephalitis	2	-	2	2	-	2	2	-	2	-	-	-	-	-	-	-	-	-
With other forms of syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	6	1	7	4	1	5	1	-	1	-	-	-	-	-	-	-	-	-
Due to drugs, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arterio- sclerosis	15	15	30	21	15	36	23	22	45	17	17	34	10	15	25	4	7	11
With other disturbances of circulation	-	-	-	1	-	1	-	-	-	-	1	1	-	-	-	-	-	-
With convulsive disorders (epilepsy)	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	3	7	10	4	3	7	3	8	11	6	8	14	5	3	8	1	2	3
Involuntary psychoses	1	1	2	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	1	-	1	1	2	3	2	2	4	3	-	3	-	-	-	-	-	-
Due to new growth	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	2	1	3	7	-	7	3	3	6	2	-	2	1	-	1	-	-	-
Psychoneuroses	2	1	3	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dementia praecox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic person- ality	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Without psychoses	6	4	10	6	2	8	4	4	8	-	-	-	2	-	2	-	-	-
Primary behavior disorders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	42	32	74	46	28	74	38	39	77	28	26	54	18	18	36	5	9	14

TABLE 8. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	TOTAL			Illiterate			Reads Only			Reads and Writes			Common School			High School			College			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	20	9	29	1	-	1	-	-	-	2	1	3	14	7	21	1	1	2	1	-	1	1	-	1
With other forms of syphilis . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Alcoholic psychoses . . . . .	69	15	84	4	-	4	-	-	-	2	2	4	48	6	54	10	6	16	4	1	1	1	1	2
Due to drugs, etc. . . . .	3	1	4	-	-	-	-	-	-	-	-	-	2	1	2	1	-	1	-	-	-	-	-	
Traumatic psychoses . . . . .	102	98	200	5	9	14	-	-	-	5	8	13	64	55	119	7	8	15	3	1	4	18	17	35
With cerebral arteriosclerosis . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
With other disturbances of circulation . . . . .	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
With convulsive disorders (epilepsy) . . . . .	22	31	53	2	3	5	-	-	-	3	4	7	12	17	29	1	2	3	-	-	-	4	5	9
Senile psychoses . . . . .	7	34	41	1	1	2	-	-	-	1	2	3	5	20	25	1	7	8	1	1	3	1	2	3
Involutional psychoses . . . . .	16	11	27	2	2	4	1	1	1	1	1	1	7	2	9	2	4	6	2	1	1	1	2	3
Due to other metabolic diseases, etc. . . . .	1	2	3	-	-	-	-	-	-	-	-	-	1	1	1	-	3	-	-	-	-	6	3	9
Due to new growth . . . . .	22	15	37	2	2	4	-	-	-	1	2	3	11	8	19	2	7	9	-	-	-	1	-	1
With organic changes of nervous system . . . . .	9	14	23	-	-	-	-	-	-	-	-	-	6	5	11	2	5	18	23	-	-	-	-	-
Psychoneuroses . . . . .	13	36	49	-	-	-	-	-	-	1	2	2	5	17	23	5	18	23	4	1	5	-	-	-
Manic-depressive psychoses . . . . .	52	41	93	-	-	-	-	-	-	-	-	-	24	20	44	24	18	42	4	1	5	-	-	-
Dementia praecox . . . . .	8	10	18	1	1	2	-	-	-	2	2	4	4	9	13	3	2	1	3	-	-	-	-	-
Paranoia and paranoid conditions . . . . .	5	5	10	-	-	-	-	-	-	-	-	-	3	3	6	2	1	-	-	-	-	-	-	-
With psychopathic personality . . . . .	5	4	9	-	-	-	-	-	-	-	-	-	5	2	7	-	-	-	-	-	-	-	-	-
With mental deficiency . . . . .	2	2	4	-	-	-	-	-	-	-	-	-	2	1	3	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses . . . . .	71	35	106	3	3	6	-	-	-	1	4	4	46	19	65	15	5	20	1	-	1	2	3	5
Without psychoses . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-
Primary behavior disorders . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	432	363	795	20	23	43	2	1	3	24	29	53	262	191	453	75	79	154	15	6	21	34	34	68



TABLE 10. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Dependent			Marginal			Comfortable			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	20	9	29	7	2	9	13	7	20	-	-	-	-	-	-
With other forms of syphilis	1	1	2	-	1	1	1	-	1	-	-	-	-	-	-
Alcoholic psychoses	69	15	84	7	1	8	62	13	75	-	-	-	-	1	1
Due to drugs, etc.	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
Traumatic psychoses	3	-	3	1	-	1	2	-	2	-	-	-	-	-	-
With cerebral arteriosclerosis	102	98	200	29	25	54	70	70	140	-	1	1	3	2	5
With other disturbances of circulation	1	1	2	-	-	-	1	1	2	-	-	-	-	-	-
With convulsive disorders (epilepsy)	2	4	6	1	-	1	1	4	5	-	-	-	-	-	-
Senile psychoses	22	31	53	6	8	14	14	21	35	-	-	-	2	2	4
Involutional psychoses	7	34	41	1	-	1	6	34	40	-	-	-	-	-	-
Due to other metabolic diseases, etc.	16	11	27	3	2	5	13	9	22	-	-	-	-	-	-
Due to new growth	1	2	3	-	-	-	1	2	3	-	-	-	-	-	-
With organic changes of nervous system	22	15	37	9	3	12	12	9	21	-	-	-	1	3	4
Psychoneuroses	9	14	23	-	1	1	9	13	22	-	-	-	-	-	-
Manic-depressive psychoses	13	36	49	2	-	2	10	36	46	-	-	-	1	-	1
Dementia praecox	52	41	93	5	3	8	47	38	85	-	-	-	-	-	-
Paranoia and paranoid conditions	8	10	18	1	1	2	7	9	16	-	-	-	-	-	-
With psychopathic personality	5	1	6	1	-	1	4	1	5	-	-	-	-	-	-
With mental deficiency	5	4	9	2	-	2	3	4	7	-	-	-	-	-	-
Undiagnosed psychoses	2	-	2	-	-	-	2	-	2	-	-	-	-	-	-
Without psychoses	71	35	106	13	6	19	57	28	85	-	-	-	1	1	2
Primary behavior disorders	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
Total	432	363	795	89	53	142	335	300	635	-	1	1	8	9	17

TABLE 11. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Abstinent			Temperate			Intemperate			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	20	9	29	4	5	9	10	2	12	4	2	6	2	-	2
With other forms of syphilis	1	1	2	-	1	1	-	-	-	-	-	-	1	-	1
Alcoholic psychoses	69	15	84	-	-	-	-	-	-	69	15	84	-	-	-
Due to drugs, etc.	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
Traumatic psychoses	3	-	3	-	-	-	2	-	2	1	-	1	-	-	-
With cerebral arteriosclerosis	102	98	200	26	64	90	43	18	61	19	7	26	14	9	23
With other disturbances of circulation	1	1	2	1	-	1	-	1	1	-	-	-	-	-	-
With convulsive disorders (epilepsy)	2	4	6	-	1	1	1	1	2	1	1	2	-	1	1
Senile psychoses	22	31	53	1	19	20	12	7	19	6	2	8	3	3	6
Involutional psychoses	7	34	41	1	23	24	4	8	12	2	-	2	-	3	3
Due to other metabolic diseases, etc.	16	11	27	2	7	9	11	3	14	2	1	3	1	-	1
Due to new growth	1	2	3	-	1	1	-	1	1	1	-	1	-	-	-
With organic changes of nervous system	22	15	37	4	8	12	10	3	13	2	1	3	6	3	9
Psychoneuroses	9	14	23	2	11	13	4	3	7	2	-	2	1	-	1
Manic-depressive psychoses	13	36	49	4	28	32	3	8	11	5	-	5	1	-	1
Dementia praecox	52	41	93	24	30	54	21	8	29	7	1	8	-	2	2
Paranoia and paranoid conditions	8	10	18	1	7	8	6	1	7	1	2	3	-	-	-
With psychopathic personality	5	1	6	4	-	4	-	-	-	1	1	2	-	-	-
With mental deficiency	5	4	9	3	2	5	2	1	3	-	1	1	-	-	-
Undiagnosed psychoses	2	-	2	-	-	-	1	-	1	1	-	1	-	-	-
Without psychoses	71	35	106	17	14	31	14	12	26	38	8	46	2	1	3
Primary behavior disorders	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
Total	432	363	795	95	222	317	144	77	221	162	42	204	31	22	53

TABLE 12. *Marital Condition of First Admissions (Classified with Reference to Principal Psychoses)*

PSYCHOSES	Total		Single		Married		Widowed		Divorced		Separated		Unknown	
	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.
With syphilitic meningo-encephalitis	20	9 29	4	1 5	11	5 16	2	3 5	1	1 2	2	-	-	-
With other forms of syphilis	1	1 2	1	1 32	1	1 32	-	-	3	- 3	5	1 6	-	-
Alcoholic psychoses	69	15 84	29	3 32	26	6 32	6	5 11	-	-	-	-	-	-
Due to drugs, etc.	-	1 1	-	-	-	1 1	-	-	-	-	-	-	-	-
Traumatic psychoses	3	- 3	1	- 39	1	- 39	1	- 1	-	-	1	- 1	-	-
With cerebral arteriosclerosis	102	98 200	16	23 39	46	24 70	35	47 82	4	3 7	1	- 1	1	1
With other disturbances of circulation	1	1 2	-	1 2	1	- 3 4	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy) . .	2	4 6	1	1 2	1	- 3 4	-	-	-	-	-	-	-	-
Senile psychoses	22	31 53	7	9 16	10	7 17	4	15 19	-	-	1	- 1	-	-
Involuntional psychoses	7	34 41	3	8 11	2	22 24	1	4 5	-	-	1	- 1	-	-
Due to new growth	16	11 27	3	4 7	11	6 17	2	1 3	-	-	-	-	-	-
Due to other metabolic diseases, etc.	1	2 3	-	-	1	2 3	-	-	-	-	-	-	-	-
With organic changes of nervous system	22	15 37	9	4 13	6	5 11	7	5 12	-	-	-	-	-	-
Psychoneuroses	9	14 23	2	9 11	7	4 11	-	-	-	-	1	1 1	-	-
Manic-depressive psychoses	13	36 49	7	19 26	3	15 18	1	1 2	-	-	1	1 2	1	1
Dementia praecox	52	41 93	42	27 69	7	12 19	-	-	1	- 1	-	-	-	-
Paranoia and paranoid conditions	8	10 18	3	4 7	4	5 9	1	1 1	-	-	-	-	-	-
With psychopathic personality	5	1 6	3	3 6	2	- 2	-	-	-	-	-	-	-	-
With mental deficiency	5	4 9	4	3 7	1	- 1	-	-	1	- 1	-	-	-	-
Undiagnosed psychoses	2	- 2	-	-	2	- 2	-	-	-	-	-	-	-	-
Without psychoses	71	35 106	34	13 47	27	13 40	5	6 11	3	1 4	1	2 3	1	1
Primary behavior disorders	1	- 1	1	1 1	-	-	-	-	-	-	-	-	-	-
Total	432	363 795	169	129 298	170	130 300	64	89 153	13	6 19	13	8 21	3	1 4

TABLE 13. *Mental Disorders of All Admissions, All Discharges Out on September 30, 1940, by*

MENTAL DISORDERS	ALL ADMISSIONS						ALL DISCHARGES							
	First Admissions			Read-missions			First Admissions				Read-missions			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	Rate	M.	F.	T.	Rate
<i>Psychoses Due to or Associated with Infection</i>	21	10	31	3	2	5	7	3	10	109.8	2	1	3	111.1
Syphilis of the Central Nervous System	21	10	31	3	1	4	7	3	10	116.2	1	1	2	80.0
Meningo-encephalitic type (general paresis)	20	9	29	3	1	4	6	3	9	115.3	1	1	2	86.9
Meningo-vascular type (cerebral syphilis)	1	—	1	—	—	—	1	—	1	166.6	—	—	—	—
Other types	—	1	1	—	—	—	—	—	—	—	—	—	—	—
With epidemic encephalitis	—	—	—	—	—	—	—	—	—	—	1	—	1	1000.0
With other infectious disease	—	—	—	—	1	1	—	—	—	—	—	—	—	—
<i>Psychoses Due to Intoxication</i>	69	16	85	25	3	28	55	10	65	336.7	20	3	23	302.6
Due to Alcohol	69	15	84	25	1	26	55	9	64	335.0	20	1	21	287.6
Delirium tremens	2	—	2	—	—	—	2	—	2	1000.0	1	—	1	1000.0
Korskov's psychosis	14	2	16	2	1	3	9	2	11	234.0	2	—	2	166.6
Acute hallucinosis	16	5	21	6	—	6	18	4	22	578.9	6	1	7	437.5
Other types	37	8	45	17	—	17	26	3	29	278.8	11	—	11	255.8
<i>Due to Drugs or Other Exogenous Poisons</i>	—	1	1	—	2	2	—	1	1	500.0	—	2	2	666.6
Due to opium and derivatives	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Due to other drugs	—	1	1	—	2	2	—	1	1	500.0	—	2	2	1000.0
<i>Psychoses Due to Trauma</i>	3	—	3	2	1	3	5	—	5	625.0	—	—	—	—
Traumatic delirium	1	—	1	—	—	—	1	—	1	500.0	—	—	—	—
Post-traumatic personality disorders	—	—	—	2	—	2	—	—	—	—	—	—	—	—
Post-traumatic mental deterioration	1	—	1	—	1	1	2	—	2	500.0	—	—	—	—
Other types	1	—	1	—	—	—	2	—	2	1000.0	—	—	—	—
<i>Psychoses Due to Disturbance of Circulation</i>	103	99	202	22	18	40	53	53	106	219.9	7	11	18	187.5
With cerebral arteriosclerosis	102	98	200	22	18	40	53	53	106	221.2	7	11	18	189.4
With cerebral embolism	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With cardio-renal disease	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other types	1	1	2	—	—	—	—	—	—	—	—	—	—	—
<i>Psychoses Due to Convulsive Disorders (Epilepsy)</i>	2	4	6	5	3	8	2	7	9	333.3	4	1	5	131.5
Epileptic deterioration	1	2	3	2	—	2	2	2	4	400.0	1	1	2	133.3
Epileptic clouded states	1	2	3	2	2	4	—	5	5	312.5	3	—	3	142.8
Other epileptic types	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Psychoses Due to Disturbances of Metabolism, Growth, Nutrition or Endocrine Function</i>	45	76	121	3	17	20	23	30	53	244.2	—	8	8	135.5
Senile Psychoses	22	31	53	1	3	4	4	8	12	136.3	—	1	1	111.1
Simple deterioration	11	17	28	—	1	1	2	5	7	184.2	—	1	1	333.3
Presbyophrenic type	4	5	9	—	—	—	1	1	2	133.3	—	—	—	—
Depressed and agitated types	3	4	7	—	2	2	—	2	2	166.6	—	—	—	—
Paranoid types	4	5	9	1	—	1	1	—	1	43.4	—	—	—	—
Involutional psychoses	7	34	41	1	11	12	8	15	23	242.1	—	6	6	146.3
Melancholia	5	19	24	1	7	8	5	8	13	224.1	—	6	6	214.2
Paranoid types	1	13	14	—	4	4	2	6	8	275.8	—	—	—	—
Other types	1	2	3	—	—	—	1	1	2	250.0	—	—	—	—
With diseases of the endocrine glands	—	—	—	—	1	1	—	—	—	—	—	1	1	500.0
Exhaustion delirium	1	1	2	—	—	—	—	—	—	—	—	—	—	—
Alzheimer's disease	1	—	1	—	1	1	—	1	1	500.0	—	—	—	—
With pellagra	2	—	2	—	—	—	—	—	—	—	—	—	—	—
With other somatic diseases	12	10	22	1	1	2	11	6	17	586.2	—	—	—	—
<i>Psychoses Due to New Growth</i>	1	2	3	—	—	—	—	—	—	—	—	—	—	—
With intracranial neoplasms	—	2	2	—	—	—	—	—	—	—	—	—	—	—
With other neoplasms	1	—	1	—	—	—	—	—	—	—	—	—	—	—
<i>Psychoses Due to Unknown or Hereditary Causes, but Associated with Organic Changes</i>	22	15	37	6	4	10	6	3	9	136.3	3	3	6	230.7
With multiple sclerosis	—	1	1	2	—	2	—	—	—	—	1	—	1	333.3
With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	1	1	500.0
With other brain or nervous diseases	22	14	36	4	4	8	6	3	9	142.8	2	2	4	190.4
<i>Disorders of Psychogenic Origin or Without Clearly Defined Tangible Cause or Structural Change</i>	92	106	198	76	112	188	57	78	135	118.7	48	78	126	118.8
Psychoneuroses	9	14	23	4	10	14	6	9	15	468.7	2	8	10	476.1
Anxiety hysteria	—	1	1	—	—	—	—	—	—	—	—	—	—	—
Conversion hysteria:	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Amnesia type	1	—	1	—	—	—	—	—	—	—	—	—	—	—

Note: Admissions and discharges do not include transfers.



*All Deaths, 1940, All Cases in Residence and All Cases  
Status of Admission and Sex*

ALL DEATHS								RESIDENT POPULATION								PATIENTS OUT ON VISIT, ETC.							
First Admissions				Read-missions				First Admissions				Read-missions				First Admissions				Read-missions			
M.	F.	T.	Rate	M.	F.	T.	Rate	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
9	3	12	151.8	1	2	3	111.1	37	20	57	12	9	21	8	4	12	-	-	-	-	-	-	
9	3	12	162.1	1	1	2	80.0	36	16	52	12	9	21	8	4	12	-	-	-	-	-	-	
9	3	12	181.8	1	1	2	86.9	33	12	45	10	9	19	8	4	12	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	2	3	5	2	-	2	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	
8	4	12	67.0	-	1	1	1000.0	80	22	102	40	2	42	9	5	14	7	3	10	-	-	-	
8	4	12	67.7	-	1	1	15.1	79	22	101	39	2	41	9	5	14	7	3	10	-	-	-	
-	-	-	-	-	-	-	15.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	-	1	23.2	-	-	-	-	19	12	31	7	1	8	3	1	4	1	1	2	-	-	-	
1	-	1	27.7	-	-	-	-	13	-	13	2	-	2	1	1	2	6	1	7	-	-	-	
6	4	10	104.1	-	1	1	23.2	47	10	57	30	1	31	5	3	8	-	1	1	-	-	-	
-	-	-	-	-	-	-	-	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	1	1	250.0	3	-	3	3	-	3	-	-	-	2	-	2	-	-	-	
-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	1	-	1	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	1	1	5000.	2	-	2	1	-	1	-	-	-	1	-	1	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
59	76	135	299.3	13	9	22	247.1	97	113	210	21	28	49	16	15	31	4	3	7	-	-	-	
59	75	134	298.4	13	8	21	238.6	96	113	209	21	28	49	15	15	30	4	3	7	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	
-	-	-	-	-	1	1	1000.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	1	1	500.0	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
2	2	4	153.8	1	-	1	29.4	6	7	13	15	13	28	-	1	1	1	3	4	-	-	-	
1	1	2	200.0	1	-	1	66.6	1	3	4	6	6	12	-	-	-	-	-	-	-	-	-	
1	1	2	133.3	-	-	-	-	4	4	8	9	6	15	-	1	1	-	3	3	-	-	-	
-	-	-	-	-	-	-	-	1	-	1	-	1	1	-	-	-	1	-	1	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	22	34	171.7	4	3	7	152.1	30	81	111	5	26	31	4	15	19	4	9	13	-	-	-	
7	18	25	290.6	2	1	3	333.3	16	33	49	-	5	5	1	1	2	-	-	-	-	-	-	
4	9	13	351.3	1	1	2	666.6	6	11	17	-	-	-	1	-	1	-	-	-	-	-	-	
2	4	6	428.5	-	-	-	-	2	4	6	-	-	-	-	1	1	-	-	-	-	-	-	
1	2	3	250.0	-	-	-	-	2	5	7	-	4	4	-	-	-	-	-	-	-	-	-	
-	3	3	130.4	1	-	1	500.0	6	13	19	-	1	1	-	-	-	-	-	-	-	-	-	
2	3	5	63.2	1	2	3	103.4	9	42	51	4	16	20	3	13	16	3	9	12	-	-	-	
1	2	3	61.2	1	2	3	136.3	6	27	33	2	11	13	3	6	9	1	5	6	-	-	-	
-	1	1	45.4	-	-	-	-	2	11	13	1	5	6	3	7	7	1	4	5	-	-	-	
1	-	1	125.0	-	-	-	-	1	4	5	1	-	1	-	-	-	1	-	1	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	
1	1	2	1000.0	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	1	-	1	-	1	1	-	-	-	1	-	1	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	2	71.4	1	-	1	333.3	3	6	9	-	2	2	-	1	1	-	-	-	-	-	-	
1	2	3	1000.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	2	3	1000.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	-	1	1000.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	4	12	226.4	-	1	1	41.6	17	15	32	12	5	17	7	6	13	1	1	2	-	-	-	
-	-	-	-	-	-	-	-	2	1	3	2	-	2	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	
8	4	12	240.0	-	1	1	263.1	15	14	29	10	4	14	7	6	13	1	1	2	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	22	28	27.5	10	10	20	21.4	360	493	653	324	463	787	47	74	121	46	81	127	-	-	-	
-	-	-	-	-	-	-	-	7	6	13	4	3	7	-	4	4	2	2	4	-	-	-	
-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	

TABLE 13. *Mental Disorders of All Admissions, All Discharges, Out on September 30, 1940, by Status of*

MENTAL DISORDERS	ALL ADMISSIONS						ALL DISCHARGES							
	First Admissions			Read-missions			First Admissions				Read-missions			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	Rate	M.	F.	T.	Rate
Mixed hysterical psychoneurosis	-	-	-	-	5	5	-	-	-	-	-	2	2	250.0
Psychasthenia or compulsive states:														
Mixed compulsive states	-	1	1	1	1	2	-	1	1	1000.0	-	1	1	500.0
Neurasthenia	1	1	2	-	-	-	-	-	-	-	-	-	-	-
Reactive depression	6	11	17	-	3	3	4	7	11	647.0	-	3	3	1000.0
Anxiety state	1	-	1	1	1	2	1	-	1	1000.0	-	-	-	-
Mixed psychoneurosis	-	-	-	2	-	2	3	1	2	500.0	2	2	4	1000.0
Manic-depressive Psychoses	13	36	49	18	43	61	11	30	41	145.3	16	40	56	181.2
Manic type	4	9	13	13	16	29	3	5	8	117.6	11	11	22	167.9
Depressive type	6	15	21	4	18	22	6	18	24	171.4	4	22	26	206.3
Circular type	-	-	-	1	3	4	-	-	-	-	-	1	1	166.6
Mixed type	2	9	11	-	5	5	-	4	4	160.0	1	1	2	100.0
Perplexed type	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stuporous type	-	1	1	-	-	-	1	-	1	35.7	-	2	2	142.8
Other types	1	2	3	-	1	1	1	3	4	250.0	-	3	3	300.0
Dementia praecox (schizophrenia)	52	41	93	35	37	72	24	22	46	81.4	21	15	36	71.5
Simple type	5	-	5	2	3	5	4	-	4	111.1	-	2	2	71.4
Hebephrenic type	1	1	2	-	6	6	1	5	6	43.7	1	4	5	43.8
Catatonic type	4	6	10	5	6	11	8	3	11	123.5	6	-	6	69.7
Paranoid type	33	24	57	15	16	31	8	11	19	72.5	7	9	16	70.1
Other types	9	10	19	13	6	19	3	3	6	146.3	7	-	7	148.9
Paranoia	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranoid conditions	8	10	18	6	9	15	5	12	17	103.6	2	5	7	93.3
With psychopathic personality	5	1	6	6	4	10	3	1	4	363.6	3	4	7	241.3
With mental deficiency	5	4	9	7	9	16	8	4	12	148.1	4	6	10	81.3
Idiot	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Imbecile	2	1	3	1	1	2	3	1	4	111.1	-	1	1	29.4
Moron	3	2	5	5	5	10	4	3	7	194.4	4	4	8	111.1
Unknown	-	1	1	1	3	4	1	-	1	111.1	-	1	1	66.6
Undiagnosed Psychoses	2	-	2	1	-	1	-	-	-	-	-	-	-	-
Without Psychoses	71	35	106	26	20	46	68	34	102	918.9	27	19	46	938.7
Alcoholism	14	3	17	6	-	6	15	3	18	1000.0	6	-	6	1000.0
Drug addiction	-	1	1	-	1	1	-	1	1	1000.0	-	1	1	1000.0
Psychopathic personality	21	2	23	7	2	9	19	2	21	913.0	8	2	10	909.0
With pathological emotionality	1	-	1	1	-	1	1	-	1	1000.0	1	-	1	1000.0
With asocial or amoral trends	19	-	19	6	2	8	17	-	17	894.7	7	2	9	900.0
Mixed types	1	2	3	-	-	-	1	2	3	1000.0	-	-	-	-
Epilepsy	2	2	4	2	2	4	2	2	4	1000.0	2	2	4	1000.0
Mental deficiency	3	1	4	2	3	5	1	1	2	400.0	2	1	3	600.0
Imbecile	1	-	1	1	1	2	1	-	1	500.0	1	-	1	500.0
Moron	2	1	3	1	2	3	-	1	1	333.3	1	1	2	666.6
Other non-psychotic diseases or conditions	16	13	29	6	4	10	15	13	28	903.2	6	4	10	1000.0
No other condition	15	13	28	3	8	11	16	12	28	965.5	3	9	12	1000.0
Primary Behavior Disorders	1	-	1	-	-	-	1	-	1	1000.0	-	-	-	-
Primary behavior disorders in children:														
Conduct disturbance	1	-	1	-	-	-	1	-	1	1000.0	-	-	-	-
Grand Total	432	363	795	169	180	349	277	218	495	211.7	111	124	235	163.4

Note: Admissions and discharges do not include transfers.



TABLE 14. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	TOTAL			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . .	7	4	11	2	1	3	3	3	6	2	-	2
With other forms of syphilis . . .	1	-	1	-	-	-	1	-	1	-	-	-
With epidemic encephalitis . . .	1	-	1	1	-	1	-	-	-	-	-	-
Alcoholic psychoses . . .	75	10	85	40	5	45	28	3	31	7	2	9
Due to drugs, etc. . .	-	3	3	-	2	2	-	-	-	-	1	1
Traumatic psychoses . . .	5	-	5	1	-	1	3	-	3	1	-	1
With cerebral arteriosclerosis . . .	60	64	124	11	10	21	31	40	71	18	14	32
With convulsive disorders (epilepsy) . . .	6	8	14	3	-	3	3	7	10	-	1	1
Senile psychoses . . .	4	9	13	-	-	-	1	8	9	3	1	4
Involuntional psychoses . . .	8	21	29	-	3	3	7	13	20	1	5	6
Due to other metabolic diseases, etc. . .	11	8	19	5	3	8	4	3	7	2	2	4
With organic changes of nervous system . . .	9	6	15	1	1	2	5	4	9	3	1	4
Psychoneuroses . . .	8	17	25	5	8	13	1	5	6	2	4	6
Manic-depressive psychoses . . .	27	70	97	7	23	30	16	38	54	4	9	13
Dementia praecox . . .	45	37	82	4	2	6	34	32	66	7	3	10
Paranoia and paranoid conditions . . .	7	17	24	1	2	3	6	15	21	-	-	-
With psychopathic personality . . .	6	5	11	5	1	6	1	4	5	-	-	-
With mental deficiency . . .	12	10	22	4	4	8	4	6	10	4	-	4
Without psychoses . . .	95	53	148	-	-	-	-	-	-	-	-	-
Primary behavior disorders . . .	1	-	1	-	-	-	-	-	-	1	-	1
Total . . .	388	342	730	90	65	155	148	181	329	55	43	98





[illegible]

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Mental Disorders — Continued*

[illegible]





TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses

PSYCHOSES	Total			15-19 years			20-24 years			25-29 years			30-34 years			35-39 years			40-44 years			45-49 years			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
With syphilitic meningo-encephalitis . . . . .	10	4	14	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	1	-	1	3
With other infectious diseases . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Alcoholic psychoses . . . . .	8	5	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Traumatic psychoses . . . . .	72	83	155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
With cerebral arteriosclerosis . . . . .	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
With other disturbances of circulation . . . . .	3	2	5	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
With convulsive disorders (epilepsy) . . . . .	9	19	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Senile psychoses . . . . .	3	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Involutional psychoses . . . . .	4	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Due to other metabolic diseases, etc. . . . .	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Due to new growth . . . . .	8	5	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
With organic changes of nervous system . . . . .	5	7	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Manic-depressive psychoses . . . . .	11	13	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dementia præcox . . . . .	-	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Paranoia and paranoid conditions . . . . .	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
With mental deficiency . . . . .	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total . . . . .	136	162	298	1	-	1	2	2	1	3	3	1	4	2	4	6	3	6	9	3	6	9	3	6	9

PSYCHOSES	50-54 years			55-59 years			60-64 years			65-69 years			70-74 years			75-79 years			80-84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	-	3	3	2	-	2	1	-	1	1	-	1	2	-	2	-	-	-	-	-	-	-	-	-
With other infectious diseases . . . . .	1	-	1	2	-	2	1	2	3	2	1	3	1	2	3	2	1	3	-	-	-	-	-	-
Alcoholic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses . . . . .	-	1	1	7	1	8	7	9	16	13	13	26	18	22	40	11	11	22	4	4	8	4	4	8
With cerebral arteriosclerosis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other disturbances of circulation . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . . . .	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses . . . . .	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Involutional psychoses . . . . .	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc. . . . .	-	-	-	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to new growth . . . . .	2	3	5	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system . . . . .	1	2	3	2	2	4	2	2	4	2	2	4	1	2	3	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dementia præcox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	9	12	21	17	7	24	12	16	28	20	20	40	28	35	63	15	36	51	5	6	11	5	6	11

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital During All Admissions Classified According to Principal Psychoses*

PSYCHOSES	Total		Less than 1 month		1-3 months		4-7 months		8-12 months		1-2 years		3-4 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	10	4	14	5	1	6	-	1	1	1	2	1	-	1	1
With other infectious diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	8	5	13	1	-	1	-	1	1	1	-	-	-	1	1
Traumatic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	72	83	155	15	23	38	19	23	42	14	10	24	11	17	28
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	3	2	5	-	1	1	-	-	-	-	-	-	-	1	1
Senile psychoses	9	19	28	1	4	5	5	5	10	1	2	3	1	2	3
Involutional psychoses	3	5	8	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	4	1	5	1	1	2	2	2	2	1	-	-	-	-	-
Due to new growth	1	2	3	1	2	3	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	8	5	13	2	-	-	-	-	-	1	1	1	1	1	1
Manic-depressive psychoses	5	7	12	-	-	-	-	-	-	-	-	-	-	-	-
Dementia praecox	11	13	24	-	-	-	-	-	-	-	-	-	-	1	2
Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
With mental deficiency	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	2	-	2	1	-	1	-	-	-	-	-	-	-	-	-
Total	136	162	298	27	33	60	34	35	69	18	15	33	11	7	18

PSYCHOSES	5-6 years		7-8 years		9-10 years		11-12 years		13-14 years		15-19 years		20 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With other infectious diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1
Traumatic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
With cerebral arteriosclerosis	3	-	3	-	-	-	1	1	-	-	-	1	1	-	-
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Involutional psychoses	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to new growth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	-	2	2	1	1	2	1	1	-	-	-	-	-	-	-
Manic-depressive psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dementia praecox	1	1	2	1	1	2	1	1	-	-	1	2	1	2	3
Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	6	4	10	2	3	5	2	5	7	-	2	3	5	1	5

6	8	14
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9	17	26
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TABLE 20-A. *Present Age of Readmissions in Residence on September 30, 1940, by Mental Disorders*

MENTAL DISORDERS	Total		0-14 years		20-24 years		25-29 years		30-34 years		35-39 years		40-44 years		45-49 years		50-54 years	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
With syphilitic meningo-encephalitis . . .	10	9	19								1	1	3	2	1		2	3
With other forms of syphilis . . .	2	2	2										1					5
Alcoholic psychoses . . .	39	2	41								2		1				4	4
Due to drugs, etc. . .	1	1	1														1	1
Traumatic psychoses . . .	3	3	3				1											1
With cerebral arteriosclerosis . . .	21	28	49															1
With convulsive disorders (epilepsy) . . .	15	13	28				2	2	5	1	3	2	4	4	2	2	1	1
Senile psychoses . . .	5	5	5															1
Involuntary psychoses . . .	4	16	20															1
Due to other metabolic diseases, etc. . .	1	5	6				1	1			1	1	1	1	1	3	4	3
With organic changes of nervous system . . .	12	5	17				1	2	1		1	1	1	2	1	1	1	1
Psychoneuroses . . .	4	3	7															1
Manic-depressive psychoses . . .	62	129	191				4	5	9	10	5	22	27	23	5	10	15	17
Dementia praecox . . .	185	224	409				24	4	28	21	20	41	54	50	14	33	47	23
Paranoia and paranoid conditions . . .	14	45	59														2	5
With psychopathic personality . . .	9	10	19				2		2		1	3	4	1	1	2	3	3
With mental deficiency . . .	50	52	102				9	3	12	10	9	13	16	4	6	7	13	10
Without psychoses: . . .																		1
Psychopathic personality . . .	1	2	2															4
Mental deficiency . . .																		10
Total . . .	433	548	981	11		15	41	16	57	51	49	63	71	39	64	103	45	60

TABLE 20-A. *Present Age of Readmissions in Residence on September 30, 1940, by Mental Disorders—Continued*

MENTAL DISORDERS	55-59 years		60-64 years		65-69 years		70-74 years		75-79 years		80-84 years		85-89 years		90 years and over			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	1	3	4	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
With other forms of syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	8	1	9	4	1	5	7	7	1	1	-	-	-	-	-	-	-	-
Due to drugs, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses	-	-	-	1	5	4	1	6	8	14	-	3	3	1	1	2	-	-
With cerebral arteriosclerosis	1	3	4	1	4	1	9	6	8	14	2	2	4	1	1	2	-	-
With convulsive disorders (epilepsy)	2	2	4	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Involutional psychoses	1	1	2	2	3	5	-	1	1	1	-	-	-	1	1	-	1	1
Due to other metabolic diseases, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	1	-	1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	7	12	19	12	22	34	8	8	16	-	-	-	-	-	-	-	-	-
Dementia praecox	16	32	48	11	20	31	7	16	23	2	4	6	-	-	-	-	1	1
Panama and paranoid conditions	1	9	10	2	5	7	3	8	11	4	6	10	1	3	7	1	1	1
With psychopathic personality	1	1	2	1	1	1	-	7	8	1	2	2	2	1	1	1	-	-
With mental deficiency	1	2	3	2	1	3	-	2	2	1	3	-	-	-	-	-	-	-
Without psychoses:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mental deficiency	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	40	68	108	42	59	101	32	41	73	23	27	50	4	17	21	1	3	4

TABLE 21. *Family Care Statistics for Year Ended September 30, 1940*

	Males		Females		Total
Admitted to Family Care During the Year.					39
Whole Number of Cases within the Year		8	31	31	39
Discharged from Family Care within the Year		8	31	31	39
Discharged Outright from Family Care		1	17	17	18
Returned to Institution		1	16	16	17
Remaining in Family Care September 30, 1940		7	14	14	21
Average Daily Number in Family Care During Year		1.12	5.94	5.94	7.06
Supported by State		7	14	14	21









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